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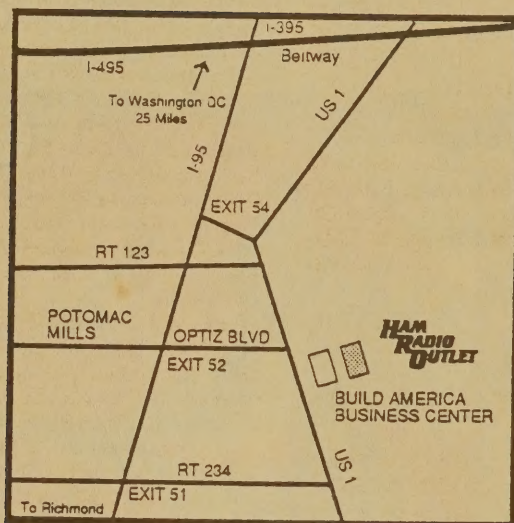
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Vienna Wireless Society
Washington Adventist Amateur Radio Association
Washington Area Young Ladies' Amateur Radio Club
Woodbridge Wireless, Inc.

EDITORIAL

The Gaithersburg F.A.R. FEST broke all records this year! The parking lot was nearly filled by 9:30 a.m. and all admission tickets were sold out before noon - all 8,000 of them! Late-comers got in on converted tail-gate tickets. The attendance must have exceeded well over 10,000 people. We will have a full report and some pictures in next month's Auto-Call.

The weather man certainly cooperated and every thing went smoothly - thanks to Nancy Draheim and the fine Hamfest team who carried on the work Bob Moore had chaired for so many years. We feel it was a Hamfest Bob would have been proud of. There were several new commercial exhibitors this year and the "tail-gating" covered as far as the eye could see! There were a good many bargains available - and an awful lot of "boat anchors." Anyhow, it certainly was the place to see every one you ever knew or talked to on the air and a great opportunity to put a face with that familiar voice or fist.

Some food for thought for future years was suggested by Robert Haslach, N3FRT and his 10 year old son. They would like to see more **promotion** of Amateur Radio at our Hamfests - a sort of "festival of Amateur Radio." Robert envisioned a "hands on" exhibit where people could see a demonstration of such things as packet, which many have heard about but have never seen in actual operation.

Their points are certainly worth considering. We may be missing a great opportunity to give some much needed encouragement to the youngsters and other newcomers we are so anxious to attract. A 10,000 strong Hamfest can be very impressive but also pretty confusing and a bit overwhelming. Maybe we could have a special section devoted to new and used equipment which would be appropriate for newcomers, and a team of knowledgeable "elmers" available who could give information and advice. Rather than concentrating on bigger and better flea markets maybe we should think about using our Hamfests to **promote** Amateur Radio and, in the process, show some of the parents and spouses what a wonderful activity Amateur Radio really is. We would like to hear your comments.

Ethel Smith, K4LMB

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Coming Events

- | | |
|-----------|---|
| Sep 27-28 | QCWA National Convention, Canton, OH |
| Sep 31 | Shelby, NC Hamfest |
| | |
| Oct 5 | Brunswick (MD) Radio Amateur Group Special Event |
| Oct 6 | Mid-Atlantic Antique Radio Club Picnic |
| Oct 13 | Howard County CARA Hamfest, Howard County Fairgrounds (P 26) |
| Oct 19-20 | ARRL Simulated Emergency Test (SET) (See Page 37) |
| Oct 19-20 | Scouts Jamboree-on-the-Air (See page 30) |
| Oct 20 | Cumberland County Hamfest & Computerfest, Carlisle, PA |
| Oct 23-25 | Junior High School 22 - WB2JKJ Special Event |
| | |
| Nov 2-4 | CW Sweepstakes |
| Nov 3 | Marine Corps Marathon - Amateur Radio Communications (P 28)
coordinated by Pentagon ARC. See PARC column on page 33. |
| Nov 3 | Mason-Dixon Computer & Hamfest, Westminster, MD |
| Nov 16-18 | Phone Sweepstakes |
| Nov 24 | Mason-Dixon Hamfest, Westminster, MD |
| | |
| Dec 8 | Goddard & Tri-County HolidayFest, Largo, MD (See Page 22) |
| Dec 6-8 | 160 Meter Contest |
| Dec 14-15 | 10-Meter Contest |

1992

- | | |
|-----------|---|
| Jan 19 | Richmond Frostfest |
| | |
| Feb 23 | Vienna WINTERFEST™, Vienna Virginia |
| Feb 29 | Cumberland County Hamfest/Computerfest, Camp Hill, PA |
| | |
| May | Howard County CARA Hamfest, Howard County Fairgrounds |
| | |
| Sept 1992 | F.A.R. FEST, Gaithersburg, Maryland |

Please keep Auto-Call advised of coming Hamfests and other important Coming Events. We are anxious to provide our readers with timely information and help to avoid possible conflicts when scheduling activities.

We can use all the help we can get!

THE NEW GENERATION ROTATORS

THEY'RE NOT YOUR FATHER'S HAM "M"

Rotator Comparison Chart

	The New Generation									Old Generation	
Model/Specs	Create RCS	Create RCSA	Create RCSB	Emoto 105TSX	Emoto 747SRX	Emoto 1105MSX	Emoto 1200FX	Emoto 1300MSAX	Emoto 1800FSX	Telex HamIV	Telex T2X
Rotate Torque Ft/Lb	43	116	160	37	50	57	143	215	287	67	83
GCR Kg/M	N/A	N/A	N/A	100	400	700	1000	1800	3000	N/A	N/A
Ant Inertia	N/A	N/A	N/A	100	400	700	1000	1800	3000	N/A	N/A
Brk/Static Torque Ft/Lb	506	1085	1450	215	502	717	1290	1792	2150	417	750
Wind Load In Tower (ft)	10	25	25	11	22	27	27	33	36	15	20
Mast mount	4	5	7	5	9	12	12	15	16	7.5	10
Rotating speed 360°	60-150 sec variable	60-150 sec variable	60-150 sec variable	55	35	65	40	77	80	60	60
Rev Delay	None	2 sec	3 sec							None	None
Preset	Opt 3	Opt 3	yes	no	no	Opt	yes	yes	yes	no	no
Computer	no	no	no	no	yes	yes	yes	yes	yes	no	no
Power 120V 60Hz	80VA	140VA	200VA	70VA	70VA	70VA	90VA	120VA	150VA	26V AC	26V AC
Mast Dia.	2-2.5 in	2-2.5 in	2-2.5 in	2-2.4 in	1.6-2.4 in	1.6-2.4 in	1.6-2.4 in	2.4-3.1 in	3.5-5.5 in	2 in	2 in
Control wire	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	7 cond	8 cond	8 cond
Vertical max load #	880	1540	1540	660	1100	880	1780	1780	2200	400	800
Rotor wire	13	17	20	7.5	9	11	11	13	39.5	24	28
Brake type	worm drive	worm drive	worm drive	disk	friction	friction	friction	friction	friction	wedge	wedge
Self center mast clamp	yes	yes	yes	Adj	Adj	Adj	Adj	Adj	Adj	no	no
Special notes	3-6	3-6	3-6	6	1-6	6	2-6	6	6	4-7	4-7
Pricing (\$)	\$269.00	\$449.95	\$799.00	\$209.95	\$399.00	\$589.00	\$679.00	\$1099.00	\$3272.00	\$369.95	\$439.95
With Present	\$379.00	\$528.95				\$663.00					

Notes:
1. Turns Tribander 470° in 35 seconds
4. T2X and HamIV have same motor and gear train parts
7. 120V normal 220V special order

2. Variable speed 40 sec max
5. EEB prices as of 5/91 subject to change
8. Wind Load in Sq. Feet

3. Variable speed w/SCR constant rotational torque at any speed
6. 120/220 speed transformer

THE NEW GENERATION

An entire generation of amateurs have grown up knowing only one rotator manufacturer. Those old favorites are still popular. But, now a new generation of rotators are out to set high standards with innovative features such as: large machined steel gears, cast and machined aluminum cases, solid state controllers for smooth start/stop, preset, computer control and circular position indicators.

The bottom line is... strong, long term reliability, ease of operation and cost effectiveness. When you erect an antenna system the last thing you need is rotor problems!

CREATIVE DESIGN ROTATORS

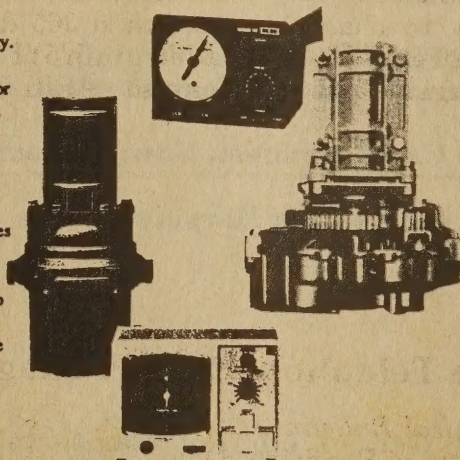
CREATE is serious about long term reliability. The CREATE RC5 series rotators were designed with the serious DX'er in mind. Three models for medium, large and ultra large antenna arrays are available.

ROTOR FEATURES OF RC5 SERIES

- * Large strong reduction gear system provides long term reliability during years of rugged operation.
- * Worm drive gearing provides powerful braking force and low backlash to keep your antenna in position during severe weather conditions.
- * Cast and machined aluminum case provide the strength required for long lasting service.
- * Mast clamp guides for ease of mast installation.

CONTROLLER FEATURES OF RC5 SERIES

- * Speed control using silicon control rectifiers allows slow speed without reduction in rotation torque. Rotating spec is constant 60 to 200 seconds per 360 degrees.
- * Reverse delay control (RDC). Delays reverse command to rotor until antenna is at rest. Prevents damage to rotor antenna and tower system.
- * Circular dial indicator, for quick accurate reading of antenna direction. Great circle overlay available for USA (west-cent-east). * Preset (on 3 models) a must for quick setting of antenna direction. Just turn the knob to the new heading, the rest is automatic. Won't waste your time holding down the brake lever and wait.



EMOTO ROTATORS

More than 60% of all Japan amateurs use EMOTO rotators. Many unique innovations and international patents have made EMOTO number one.

EMOTO has a fool proof method to calculate which of their rotators will satisfy your needs. This GD² formula considers your antenna (s) weight, boom and longest element length. The EMOTO sheet is in metric so one must convert weight 2.2lbs= 1kg and length in meters 3.3ft=1 meter. Calculate your GD² then compare EMOTO GD² spec above.

$$GD = W \times \frac{L + B}{12}$$

Where: W: weight of antenna (kg)
L: length of longest element (m)
B: length of boom(m)

GD² EXAMPLES: Kgm²

TH7DX (437), TH3JR (63), 205BA (675), DISC7-3 (1300), A3S (61), A4S (173), KLM KT34XA (378), 3 ELE TRIBAND (150), 6 ELE TRIBAND (400), 20M 5 ELE (750), 15M 6 ELE (650), 40M 2 ELE SHORT BOOM (240), 40M 2 ELE FULL BOOM (800), 80M 2 ELE (1500), STACK ARRAYS 10M 5 ELE (60), 15M 5 ELE (200), 20M 5 ELE (750), 60+200+750=1010

EMOTO also has a robust AZ-EL rotator that has computer I/O ports. For those working satellites or EME moon bounce the EV700D5X should do the job, as rotating torque is more than double the YAESU G5400B AZ-EL.



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FCC HIGHLIGHTS

by Bill Grenfell W4GF

"At an open meeting June 13, the FCC adopted its recommendations for U.S. proposals to the 1992 World Administrative Radio Conference. The recommendations, contained in a Report in General Docket 89-554, include the realignment of the Amateur and broadcasting bands at 7 MHz to eliminate the overlap between the two services, while retaining 300 kHz of bandwidth for Amateurs by shifting the Amateur allocation down 100 kHz and broadcasters up 100 kHz. The 40-meter recommendation is similar to what the U.S. proposed at the 1979 WARC, but had to settle for the status quo when there was insufficient support for the proposal in other countries. In fact, at WARC-79 the Amateur Service held onto its Region 2 allocation of 7100 to 7300 kHz by only a slender thread. The new recommendation still faces an uphill battle abroad; the HF spectrum below 10 MHz houses many competing interests, and reductions in existing allocations to the fixed services (which is likely to bear the brunt of any broadcasting expansion) will be resisted by many countries' delegations. Even if adopted, a number of years would pass before implementation, the U.S. is proposing an effective date in the year 2007!" (The ARRL Letter, June 27 1991).

"An Ohio high school teacher and Amateur radio operator has pleaded guilty to charges that in April he broadcast false distress signals over a Prince William County, Virginia police

radio frequency, and used an unauthorized credit card to buy radio equipment, according to the Washington Post. Under a plea bargain he has been free on \$100,000 bail, faces a maximum of 15 years in prison and a \$500,000 fine on the two-count criminal conviction." (The ARRL Letter, June 27, 1991).

"The FCC funding legislation adopted by the House Commerce Committee on July 29 contains two unusual items of interest to Amateurs and other radio hobbyists: licensing of Amateur radio clubs and a ban on scanner frequency coverage." . . . The legislation also drops the Amateur Radio Service from the list of radio services that would be charged "user fees". "The lack of (income from) fees for the Amateur Service means that future improvements in FCC processing of ham licenses, assigning of additional personnel, increased speed of processing etc., may become more difficult. Other radio services that "pay their own freight" may be more likely to receive the needed resources, sources told us." (W5YI REPORT, August 15, 1991).

"The FCC has added to its Amateur Radio rules a requirement that, to be considered a "severe handicap" for the purpose of being exempted from 13- and 20-wpm Morse code examinations, the disability must extend for more than 365 days beyond the date of certification. W5YI Report, September 1, 1991); See also (ARRL Letter, August 24, 1991).
Gf

Free Telephone RFI Package

A *Telephone Interference Technical Bulletin* that seems to have a good deal of useful information has been put together by K-Com of Randolph, Ohio. They do, of course, emphasize their own telephone-RFI filters, but there is quite a bit of general information as well. It is certainly worth the cost: a business-size SASE to Pete Kreiger - WA8KZH at K-Com, POB 82, Randolph, Ohio 44265.

Source: Ed Hare, KA1CV, ARRL Lab in ARRL Tech Notes July 1991)

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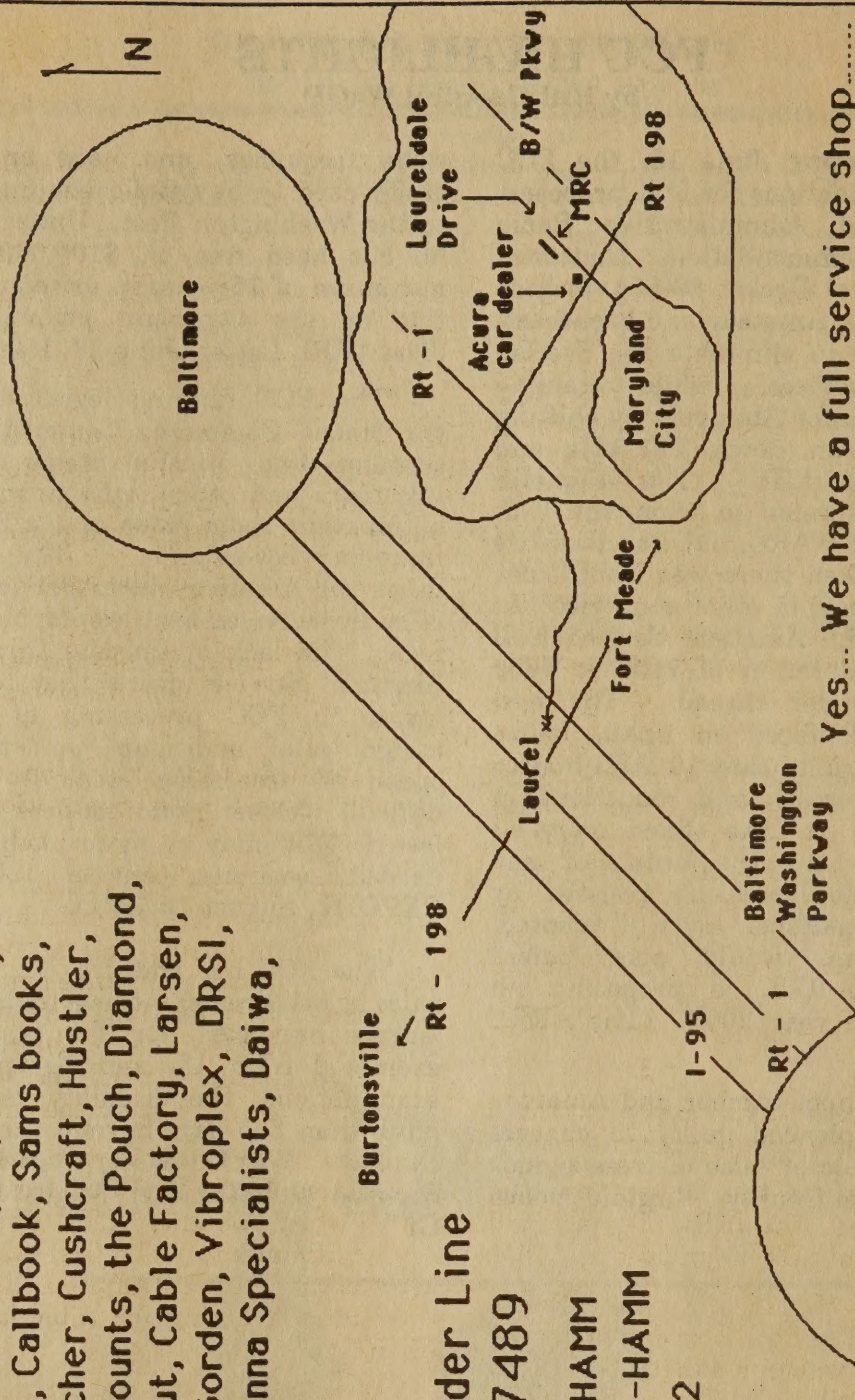
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American Radio Relay League Report

By John Swafford -- W4HU

This ARRL Report provides a brief summary of information published in the ARRL LETTER and other reports. The LETTER provides timely news of interest to active Radio Amateurs. Any League member may subscribe to the ARRL LETTER.

Albania Prepares for Amateur Radio.

Amateur Radio will officially return to Albania beginning next month, when an international group of Amateurs, as guests of the Albanian Department of Posts and Telecommunications (PTT), begin a month-long period of teaching and demonstration operating under the sponsorship of the International Amateur Radio Union.

The announcement of this exciting news for Amateurs everywhere was made in Tokyo on Aug. 24 by Mr. Agim Muco, secretary general of the Albanian PTT. Muco at the same time announced the establishment of the Albanian Amateur Radio Transmitters Society.

It is expected that during the four week project beginning in early September several groups of Amateurs will rotate in and out of Tirana, the capital city. The first week of the visit will be devoted to an introduction to Amateur Radio for Albanian officials and interested persons, and will include an opening ceremony tentatively set for Sept. 14 and 15. On-the-air operating is expected to begin after that weekend.

A number of international representatives have been invited to the opening ceremonies.

Joining the IARU in this project are the ARRL, the ARI (Italy), the JARL (Japan), and the Northern California DX Foundation.

Martti Laine, OH2BH, and Pekka Kolehmainen, OH1RY, both board members of SRAL, the Finnish Amateur society, will lead the visit, and both will be in Tirana the entire month through early October.

Also expected to participate in the initial week are Seppo Sisatto, OH1VR, immediate past president of SRAL, and Vilho Flink, OH2BAZ. In subsequent weeks, three teams of three Amateurs each are likely to join Laine and Kolehmainen to continue instruction in Amateur Radio and in operating. They are: an International Amateur Radio Union team (led by IARU President Richard L. Baldwin, W1RU); a

Japanese team (led by Kan Mizoguchi, JA1BK); and an Italian team (led by Mario Ambrosi, I2MQP, secretary general of ARI, the Italian national society).

The project organizers have suggested authorization to set up HF stations for both SSB and CW operation on the 20- 15- and 10-meter bands, with an authorized power of 500 watts.

No call sign(s) for the operation has yet been announced.

Yaesu Musen USA has donated two FT-1000 and two FT-747GX transceivers, to remain in Albania.

Round-the-clock operation was requested "considering the radio propagation to other parts of the world."

Three Albanian PTT officials were the guests of the Japanese Amateur Radio League at the JARL Convention and Fair on August 23 and 24, where the official announcement of the project was made. They included Daylan Omeri, Artur Duschku, and Secretary-General Muco. While in Tokyo these officials also met with their counterparts in the Japanese administration.

The first progress toward the reintroduction of Amateur Radio in Albania came in late May, 1991, when Albanian PTT officials agreed to some basic points. The first was the establishment of an Albanian Amateur Radio association to conduct training for Albanians in Amateur Radio.

At that time the Albanians also agreed to consider using instructors from foreign associations for the project.

The planning and execution of the project, it was decided, would be in cooperation with the IARU "and any of its member associations that may be selected on a later date."

At that point, Laine and others began fine-tuning their official proposal, finishing Aug. 1.

(Continued)

ARRL Report - Continued

Its "Mission Statement" is as follows:

- o To train five to ten Albanian people to become Amateur Radio operators and future instructors for the purpose of promoting Amateur Radio in Albania.
- o To provide Amateur Radio contacts from Albania to Amateur Radio operators worldwide, and to establish Albania as part of the international Amateur Radio community.
- o To establish an Albanian Amateur Radio association to manage and guide Amateur Radio activities in Albania.
- o To consult the Albanian PTT in the international Radio Regulations that pertain to Amateur Radio and to demonstrate how those International Radio Regulations can be converted to domestic regulations.

Amateurs around the world now prepare to welcome Albania into the worldwide community of Amateur Radio.

League, Soviets Discuss Emergency Communications.

ARRL Field Services Manager Rick Palm K1CE, has returned from a week-long visit with Amateurs in the Russian Republic of the USSR, where he discussed the role of Amateur Radio in emergency communications. Palm, at the invitation of Andy Fyodorov, RW3AH, on Aug. 3 addressed some 300 Amateurs at "Hamvention Leningrad '91," a gathering of hams now in its third year.

Palm later conducted tutorials on Amateurs' role in emergency communications in the U.S., for both Amateurs and Leningrad city officials.

Palm noted how far the concept of Amateur Radio emergency communications had come in the Russian Republic in just a few years. Glasnost, and the active role of Amateurs in the Chernobyl nuclear accident and the December, 1988 earthquake in Armenia, changed that.

On a later visit to Moscow Palm met with Red Cross and Red Crescent officials (with whom the newly-formed Russian Amateur Radio Emergency Service is associated). He noted the various long-standing agreements between the League and American aid groups, as well as the ARRL's expanding role in helping other countries with emergency communications, citing Hurricane Hugo in September, 1989, as the most recent example.

Palm and RARES coordinator Fyodorov concluded the visit with an informal agreement between ARRL Field Services and RARES, to pursue further discussions of the following:

- o Creation of an international consulting committee;
- o Organization of packet bulletin board systems and regular exchange by means of satellite packet channels of information related to emergency communications and NTS development in both countries;
- o Planning of joint conferences, meetings, and hamfests on mutually interesting questions;
- o Organization of regular joint field simulated emergency tests;
- o Joint participation in disaster relief operations;
- o Personnel exchange aimed at sharing of practical experience of participation in relief operations;
- o Practical realization and support of joint projects related to development of modern Amateur communication modes and their implementation in emergency situations.

Regarding the attempted military coup d'etat that took place shortly after the conclusion of his trip, Palm said "There were soldiers and non-combat military vehicles in the streets of both Leningrad and Moscow, but I was told that was normal.

"I had no hint from anyone that they suspected an upheaval such as that which took place Aug. 18."

Russian ARES members are said to have been involved in the operation of special emergency station R3A from the Russian "White House," which is credited with having helped organize the mass demonstration of support for democracy which led to failure of the coup. The station was shown on American network television during the crisis.

AMSAT Papers Solicited.

It's time to submit papers for the next AMSAT-NA Technical Symposium, to be held Nov. 9-10. Papers for consideration are due at ARRL Headquarters by Oct. 1, and suggested topics include the Shuttle Amateur Radio Experiment (SAREX); using Amateur satellites for education; Phase 3D satellites; Microsats, AO-21; UO-22; RS-12 and 13; and digital signal processing.

ARRL Report - Continued

ARRL Manager of Technical Development Paul Rinaldo, W4RI, has just returned from Surrey, England, where he attended the AMSAT Colloquium, and reports the hot topic there was the upcoming Phase 3D satellite.

ARRL Educational Workshop.

ARRL recently sponsored an all-day educational workshop, hosted by the Goddard Amateur Radio Club, for Amateur Radio recruiters, instructors and school teachers. Eight speakers shared successful and not-so-successful recruiting techniques they've tried. Forty-seven people spent five hours listening, asking questions and commenting on their experiences. Participants offered suggestions for future workshops, such as to invite more students to talk. Comments from evaluation forms included the following: "We need more time for presentations," John Ferguson, K3PFW. "Thanks for another great workshop!" Jerry Herman, N3BDW. "I was very impressed with the high quality of the presentations--this was fun! We needed time for more informal mingling/chatting," Samira Phillips, WO3N.

The new edition of Proceedings of the ARRL National Educational Workshop, was shown, with the announcement of a special offer through November, subject to availability: All three editions, 1989, '90 and '91 cost \$12.00 (single edition price is normally \$12.00) plus \$3.00 shipping and handling. The book contains 252 pages of articles written by recruiters and educators, such as, "Rome Radio Club Members Share Amateur Radio Magic in Schools," by Daniel Bateman, KE2SM; "Using Amateur Radio in the Classroom as a Teaching Tool," by Carolyn Caldwell, N4WBI, and James Stafford, W4QO; "Recruiting Scouts," by Hal Camlin, W3QLP; "Incorporation of Amateur Radio in High School Physics," by David Kock, W8LNJ; "Recruiting and Training," by William Mills, KC5PF; and "Mt. Vernon Estates Elementary Schools," by Keith Ward, KC4TZJ; Luke Ward, KC4UJS and David Cowhig, WA1LBP.

BRIEFS.

- o The League's new Novice-Technician Instructor Guide has been sent to the printer. Modularized lesson plans allow the teaching of Novice or Novice/Technician material either with or without the Morse code. School teachers will find the new guide

particularly useful, as each teaching module has a list of objectives, extensive use of graphics is supported, and instructors may vary the format according to their needs. Quizzes are included with each module. The authors welcome feedback from users of the Guide.

The new guide will be available around the end of August, for \$6 plus \$3.50 shipping and handling.

- o The latest Proceedings of the ARRL National Educational Workshop is now available from HQ. Included are some 250 pages of papers on Amateur Radio education and recruitment topics, written by teachers and class instructors around the country. The cost is \$12.00 plus \$3.00 S/H and includes, while supplies last, the previous two Proceedings as a bonus.
- o The popular Archie's Ham Radio Adventure comic has been reprinted and is again available for distribution.

Corporate contributors to the cost of the 100,000-print run include AEA, ARRL, ARRL Foundation, CQ Communications, Ham Radio outlet, ICOM America, Kantronics, Kenwood U.S.A., MFJ, Standard Radio, and Yaesu USA.

- o ARRL Membership Services manager Chuck Hutchinson will represent headquarters at the 1991 W9DXCC, to be held Sept. 7 in Glen Ellyn, Ill. Central Division Director Ed Metzger, W9PRN, and Vice Director Howie Huntington, K9KM, also are expected to attend. The program is filled, as usual, with speakers on various aspects of DXing and culminates with the awarding of the prestigious DX Hog of the Year award. More information available from Gordon Bazsali, WB9EEE, 255 Hillcrest Ave., Hampshire, IL 60140.
- o After ten years as manager of the W5 incoming QSL Bureau Josef Schilling, WB5YKD, is stepping down. He has been associated with the bureau operation for two decades, serving first as a "letter sorter."

The new manager is Les Bannon, WF5E (formerly W9ZTD), of the West Texas DX Association. The address is ARRL W5 Incoming QSL Bureau, PO Box 50625, Midland, TX 79710.

(Continued)

ARRL Report - Continued

- o Visitors to League HQ can see several new exhibits, including a set of first day stamp covers celebrating the flight of SAREX mission STS-37, on loan from Lynn Breece, K4LFV, and a copy of the historic November, 1919 issue of QST (announcing Amateurs' return to the air following WW 1.

Bill Godley, son of Paul Godley (2XE and one end of the historic Transatlantic Tests), has donated a number of vacuum tubes from the 1910s and '20s and once owned by his father.

- o A surprise visitor to ARRL HQ on Aug. 20 was former FCC Commissioner Nicholas Johnson, NØEAJ, of Iowa City, Iowa. Johnson was a Lyndon Johnson appointee to the FCC in 1966 and served one seven-year term, until 1973. He obtained his Amateur license a few years after leaving the Commission.

During the visit, his first to Headquarters, Johnson expressed interest in helping line up Congressional support for H.R. 73 and in pursuing the extension of federal preemption of local antenna regulations to include restrictive covenants.

- o The FCC has added to its Amateur Radio rules a requirement that, to be considered a "severe handicap" for the purpose of being exempted from 13- and 20-wpm Morse code examinations, the disability must extend for more than 365 days beyond the date of the certification.

The Commission, according to an Aug. 14 news release announcing the change, has denied three petitions for reconsideration of its original Report and Order (Dec. 13, 1990). The petitioners sought replacement of the term "severe handicap" with a specific list of disabilities that would qualify for the Morse exemption.

- o Japan is running out of Amateur call signs. With more than a million licensed Amateurs, the JA first call area has exhausted nearly all calls in the JA1, JE1-JS1 and 7K1-7N1 blocks (the Kanto district). The telecommunications Regulatory Bureau has announced that it will soon begin issuing 7K2 call signs in this district, followed by 7L2, 7M2, and 7N2 calls.

✕ ✕ ✕

Ham Radio in Space Video

A new Amateur Radio educational videotape series entitled *Ham Radio in Space* and suitable for classroom use has just been announced. The series contains six individual segments which can be used separately or combined according to instructional needs. This tape will interest viewers of all ages who are interested in space.

The entire videotape will air on Westar 5, transponder channel 4, on October 20 at 2 to 3 p.m. Eastern time. Loan copies of VHS videotapes will be available from the Educational Activities Department (EAD) of ARRL. ARRL Publications Sales will also have VHS copies for sale at \$10.00 plus \$3.00 for shipping and handling. (Ask about formats other than VHS.)

Segments in the series include: an introduction, "You Can Fly," "How Ham Radio Went into Space," "Ham Stations on Earth and in Orbit," "Hams Go to School," and "Ham Radio in the 21st Century."

The series was a cooperative effort by Roy Neal, K6DUE; Bill Pasternak, WA6ITF; Mark Neal; Rosalie White, WA1STO; and Larry D'Anna, WA3KOK, at Professional Video Services in Washington, DC. Funding for this project was provided by ARRL, CQ Communications, ICOM America and Kenwood.

For further information, contact ARRL Educational Activities Assistant Zoe Belliveau at ARRL headquarters. Phone (203) 666-1541, FAX (203) 665-7531.

DX DX DX

John Kanode, N4MM

ALBANIA ALBANIA ALBANIA

It was announced today in Tokyo that a program has been established which will lead to the introduction of Amateur Radio in Albania.

Mr. Agim Muco, the Secretary of the Albanian PTT made the announcement. During a short address at the Tokyo Hamconvention, he announced the foundation of the Albanian Amateur Radio-transmitters Society. He also announced that as a result of support from the IARU, several of its member societies and certain honored individuals, Amateur Radio transmissions from Albania would commence on September 15/16, 1991.

Under the sponsorship of the IARU, the ARRL, the JARL, the ARI, the NCDXF and Yaesu, a program of instruction and introduction has been adopted by the Albanian government which is intended to form the beginning of Amateur Radio in Albania. Mr. Richard L. Baldwin, W1RU, Mr. Seppo Sisato, OH1VR, Mr. Kan Mizoguchi, JA1BK, and Mr. Martti J. Laine, OH2BH in his capacity as a consultant to the Albanian PTT, have all been instrumental in the early phases of this project. Part of the overall program, scheduled to begin in mid September, will consist of training selected Albanian students as well as operation of Amateur stations by instructor/operators. Amateurs from a number of nations will take part in this operation.

Further information will be available shortly.

UPCOMING DXPEDITIONS

San Felix XQ0X Starting again in October
Madagascar 5R8AL Sept 15 to Oct 15
Montserrat VP2M Sept 30 to Oct 7

DX CONTESTS FOR OCTOBER

October 5/6 VK/ZL/Oceania DX Contest
October 12/13 500th Anniversary of the
Discovery of the New World Contest
October 12/13 VK/ZL/Oceania DX Contest
October 13 RSGB 21/28 MHz SSB Contest
October 20 RSGB 21 MHz CW Contest
October 26/27 CQ WW DX Phone Contest

DXAC

The DXAC will vote on the Jarvis Island petition on September 30. Results should be known by the first week in October.

Some have asked if the USSR breaks up into separate countries, how will this effect the DXCC Countries list? Most of the republics are all ready on the DXCC Countries so very little or no changes will take place. If other non republic areas decide to break off and become separate, then there could be additions. This will take several years and in today's fast moving world, we will just have to wait and see.

NEW SPECIAL AWARD

VP25E is a special prefix being used by Anguilla Amateur stations through May of 1992, celebrating the 25th anniversary of Anguilla's separation from Nevis/St. Kitts. A special certificate is available for a \$5 donation to the Anguilla Amateur Radio Society. Funds will be used to refurbish the Scout station.

HAM RADIO CLASSIFIEDS

the bi-weekly classified
newsletter for ham radio operators



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Training Classes

Robert Armstrong, WA4SQL

44 South French Street, Alexandria, VA 22304

Phone (703) 751-2294

Novice/No-Code Technician Classes, Winchester, VA. September 5 to November 7. Sponsored by the Shenandoah Amateur Radio Club. Classes will be held from 6:30 to 8:30 p.m. each Thursday at the SVARC Club House, 2921 Grace Street, Winchester. Text for the course will be the new ARRL book *Now You're Talking*, available for \$20. Self-study material will be provided for learning the code for Novice license. Examinations for license are tentatively scheduled for Saturday, November 9. Class will be limited to 20 students. For reservations and further information, contact Guy Black - W4PSJ at (703) 772-4952 or write 1201 Woodside Drive, Winchester, VA 22601.

Novice and No-code Tech Classes, Herndon, VA. September 7 to November 23. Sponsored by Herndon Repeater Group. Saturdays 9:00 a.m. to 12:00 Noon at the Herndon Police Station. Class limited to 25 students. The course is FREE but students should have a copy of either "*Tune in the World*" or "*Now You're Talking*," available through the Club at cost. For information and registration contact Michael Rosati - N4FXP at (703) 481-8380 or Mike Weber - WB8RDN at (703) 450-2304 between 7:00 and 9:00 p.m.

No-Code License Class, Woodbridge, VA. Starting September 12. Sponsored by Woodbridge Wireless, Inc. Classes will run on Thursdays from 7:00 p.m. to 8:30 p.m. at Our Lady of Angels Church, Woodbridge, VA. For information call Loyd Davis - K8EI (703) 360-0248

Novice Classes, Southern Maryland. Starting September 16 and will run eight to ten weeks. Monday nights at 7:00 p.m. at the Church of the Nativity, 5203 Manchester Drive, Temple Hills, MD. Off Branch Ave. (MD Rt 5) just outside the Beltway. Sponsored by the Southern Maryland Amateur Radio Club. Call Vic Curtis - WA3YUV at 301 888-1388 for information.

Training Classes, Vienna, VA. Starting September 16. Sponsored by Vienna Wireless Association. Classes will run about 9 weeks. For information, call Paul - AB4CY (703) 560-2779.

Novice/Technician Training Classes, Rockville, MD. Starting October 1. Sponsored by Montgomery Amateur Radio Club. Open to all, no charge for class. Textbook/license manual cost \$19 (students keep). Code also taught for Novice and Technician-Plus. Testing session at end of class. 2 blocks from Metro station. Call (301) 251-8721 recording to reserve a space. For further information call Ken Nichols - KD3VK (301) 977-5405.

Training Classes, Laurel, Maryland. Sponsored by the Laurel Amateur Radio Club. Classes to be scheduled in the fall are expected to offer an entry level program to suit those interested in obtaining a Novice or Codeless Technician class of license. Watch for information in Auto-Call or contact Pud Reaver - W3DQI (301) 498-6293 or John Albertine - W3GFS (301) 317-8221.

Novice Training Classes, Baltimore, MD. Sponsored by BRATS. Classes are being held on an on-going basis every Friday evening at American Red Cross; 4700 Mt. Hope Drive, Baltimore (near Reisterstown Road Plaza Metro Station). Class is free; Materials (which you can keep) consist of a book and tape and cost \$19.90. For registration or information, contact Jeff Salamon, N3FHT. Phone (301) 484-1362

Novice and Upgrade Classes, Lexington Park, MD. Sponsored by St. Mary's County Amateur Radio Assn. For further information call (301) 862-2214.

Novice Training Classes, N.W. Washington, DC. Sponsored by MADRAS. For more information contact Larry Zeichek - N3GKZ (301) 984-6112.

SLOW CODE PRACTICE NET, 28.250 MHz 7 to 8 p.m. Wednesdays. Sponsored by Woodbridge Wireless, Inc.

FOUNDATION FOR AMATEUR RADIO
Volunteer Examiner Cooperative

Nancy Draheim - NK4U
3513 Old Post Road, Fairfax, VA 22030
(703) 691-0078

SCHEDULE OF EXAMINATIONS
1991

IMPORTANT NOTE: If you now have a Technician class license which was acquired prior to March 21, 1987, have a copy of it available when you decide to upgrade.

EXAMS

- Sep 27** Stafford Area Repeater Assn. (Stafford,VA) (W5YI VEC) Walk-in
 Contact: David Boyd, K9MX (703) 659-6241
- Sep 30** Maryland Mobileers ARC (Annapolis, MD) Pre-registration requested
 Contact: John Kohl, KO4A (301) 757-8148 Between 6-9 p.m.
- Oct 2** Southern Patuxent ARC (Lusby, MD) (ARRL VEC)
 Contact: Dwayne Kincaid, WD8OYG (301) 586-2177 after 5:00 p.m.
- Oct 10** Frederick ARC (Frederick, MD) (ARRL VEC) Walk-in
 Contact: Rick Ogden (301) 845-2670
- Oct 12** Anne Arundel Radio Club (LARC VEC) Pre-registration requested
 Contact: Nancy Alley, NT3Z (301) 761-7115 or Bob Israel, WC3I 262-5083
- Herndon Repeater Group (Herndon, VA) (ARRL VEC) Walk-in
 Contact: Michael Rosati, N4FXP (703) 481-8380
- Massanutten ARA (Harrisonburg, VA) (ARRL VEC)
 Contact: Marshal Cooper, N4ZKH (703) 856-8012 (6-9 p.m.)
- Mount Vernon ARC (Alexandria, VA) (Laurel VEC) Pre-registration requested.
 Contact: Frank Mackey, N4GUS (703) 455-1510
- Williamsburg Area ARC (Williamsburg, VA) (ARRL VEC)
 Contact: Andrew Swanson, WJ4D (804) 253-2811
- Oct 13** Bedford ARC (Bedford, VA) (ARRL VEC) Walk-in
 Contact: August Meidling (703) 297-5515
- Oct 19** Laurel ARC (Laurel, MD) (Laurel VEC) Pregistration desirable
 Contact: John Creel, WB3GXW (301) 572-5124 after 6 p.m.
- Oct 21** Maryland Mobileers ARC (Annapolis, MD) Pre-registration requested
 Contact: John Kohl, KO4A (301) 757-8148 Between 6-9 p.m.
- Oct 27** Antietam Radio Assn ARC (Hagerstown, MD) (ARRL VEC) Pre-registration
 Contact: Norma Jean Bollinger, NC3X (717) 597-8231 (Before 9:00 p.m.)
- Nov 2** Portsmouth ARC (Portsmouth, VA) (ARRL VEC)
 Contact: Art Thiemens, AA4AT (804) 484-2857
- Middletown VE Team (Middletown, VA) (ARRL VEC) Limited walk-ins
 Contact: Walt Quitter, NC4B (703) 869-5241

(Continued)

Volunteer Examiner Cooperative - Continued

- Nov 9 Anne Arundel Radio Club (LARC VEC) Pre-registration requested
Contact: Nancy Alley, NT3Z (301) 761-7115 or Bob Israel, WC3I 262-5083
Ole Virginia Hams ARC (Manassas, VA) (ARRL VEC) Walk-in
Contact: Harry Vorhauer, W4PVA (703) 368-6050
Mount Vernon ARC (Alexandria, VA) (Laurel VEC) Pre-registration requested.
Contact: Frank Mackey, N4GUS (703) 455-1510
- Nov 16 Laurel ARC (Laurel, MD) (Laurel VEC) Pregistration desirable
Contact: John Creel, WB3GXW (301) 572-5124 after 6 p.m.
Hampton Roads Radio Assn. (Hampton, VA) (W5YI VEC)
Contact: Bill Runyon, N4BDH (804) 487-8611
Richmond (Richmond, VA) Walk-in
Contact: Ron Bolton, WU4G (804) 798-5191
- Nov 21 Rockville, MD (Laurel VEC) Limited walk-in
Contact: John Muller, W3QF (301) 564-0178
- Nov 29 Stafford Area Repeater Assn. (Stafford, VA) (W5YI VEC) Walk-in
Contact: David Boyd, K9MX (703) 659-6241
- Dec 7 Montgomery College (Germantown, MD) (ARRL VEC) Limited Walk-in
Contact: John Muller, W3QF (301) 564-0178
Virginia Beach ARC (Virginia Beach, VA) (ARRL VEC)
Contact: Ed Robison, WD4GOY (804) 468-0866
- Dec 8 Goddard & Tri-County ARC (Largo, MD) (Laurel VEC)
Contact: John Creel, WB3GXW (301) 572-5124 after 6:00 p.m.
- Dec 14 Anne Arundel Radio Club (LARC VEC) Pre-registration requested
Contact: Nancy Alley, NT3Z (301) 761-7115 or Bob Israel, WC3I 262-5083
PROS (Salisbury, MD) (Laurel VEC) Walk-in
Contact: Dave Bridge, KB3MT (301) 436-8360
Massanutten ARA (Harrisonburg, VA) (ARRL VEC)
Contact: Marshal Cooper, N4ZKH (703) 856-8012 (6-9 p.m.)¹⁴
Mount Vernon ARC (Alexandria, VA) (Laurel VEC) Pre-registration requested.
Contact: Frank Mackey, N4GUS (703) 455-1510

NOTE: All examinations require that you submit:
Copy of your current Amateur Radio license (bring original)
Completed FCC Form 610.

Check for appropriate examination fee.

Fees of individual VEC may vary.

ARRL Exam fee is \$5.25

W5YI Exam fee is \$5.25

Laurel VEC all exams are free.

Mountain VEC all exams are free

If you presently have a Technician class license which was acquired prior to March 21 1987, keep a copy of this license available when you decide to upgrade to General class. It will be your responsibility to prove you are grandfathered for Element 3B (General Theory).

This schedule of examinations appears each month in Auto-Call Magazine
Sponsored by the Foundation for Amateur Radio

Public Service Report

Hank Black - N3ESR

(301) 340-8595

Material for the PUBLIC SERVICE REPORT can be left to N3ESR on the WA3ZNW packet bulletin board on 145.090 MHz, called by telephone, or mailed electronically by modem on arrangements, or mailed to Public Service Report, 105 North Van Buren St., Rockville, MD 20850-1860. Deadline for receipt of material is the third of the month.

Deadline for receipt of material is the fourth of the month.

Agreement between ARES and Virginia Department of Emergency Services

A Memorandum of Understanding (MOU) has been completed between the Virginia Department of Emergency Services (VaDES) and the Amateur Radio Emergency Service (ARES). This MOU establishes a close working relationship between the ARRL ARES program and the Commonwealth of Virginia, Department of Emergency Services. What does this mean to the Virginia Amateur Radio Operator?

1. You only have to complete one registration form, the ARES form, to be enrolled in both ARES and RACES in Virginia. This form is now very important as it fulfills the requirements for RACES under Title 97 CFR 97.407.

2. ARES is the only Amateur Radio communications network that is recognized by the Virginia Department of Emergency Services to provide emergency communications to State and local government agencies.

3. Your ARES membership card is recognized as the RACES ID card in Virginia.

4. As an ARES/RACES volunteer, you enjoy protection from liability to the same extent as a State employee, provided that you act within the scope of the mission as assigned by Va DES.

5. The Federal Emergency Management Agency (FEMA), has recently published a new guide for state and local governments entitled "Guidance for Radio Amateur Civil Emergency Service." Its purpose is to assist emergency management personnel in using RACES capabilities for emergencies and disasters. Since Virginia has formally adopted ARES as RACES, it also provides an "open door" to local ARES organizations within the State. See your local ARES Emergency Coordinator to review a copy of this Guide.

This MOU and the timely release of the FEMA guide make it even more important for you to register with your local ARES Emergency Coordinator. ARES/RACES in Virginia is committed to organize and train a ready force of Amateur Radio Operators in order to be able to provide valuable communications in the event of an emergency or disaster. If a disaster is declared within the State, and RACES is activated, only trained registered ARES/RACES members will be allowed to provide communications.

ARES is not a club, and it is not meant to take the place of Amateur Radio clubs. ARES relies upon the cooperation of clubs for resources and personnel. Registration and training of members is the responsibility of the Virginia ARES/RACES appointees. Please feel free to contact me, your District Emergency Coordinator, or your local ARES Emergency Coordinator with your questions or concerns.

Following is an up-to-date listing of the ARES/RACES Leadership for Virginia.

Submitted by Steven P. Czaikowski, WB4ZTR
Virginia Section Emergency Coordinator
(703) 869-3674

ARES/RACES Leadership for Virginia

Virginia Section EC &
 Virginia RACES Coordinator Steven P. Czaikowski, WB4ZTR (703) 869-3674
 Virginia Deputy RACES Coordinator Henry Hassell, K4LMY (804) 561-3060
 Virginia RACES EOC Radio Officer Earl Bishop, N4EXQ (804) 270-7564
 Northern Shenandoah District #1

DEC John Anastas, KJ4EK (703) 667-6046
 Clarke County EC (Vacant)
 Frederick County EC Bob Cooley, N4VJK (703) 662-5312
 Page County EC George McCulloch, WA3WIP (703) 743-3532
 Shenandoah County EC (Vacant)
 Warren County EC Mark Kesner, KC4GIA (703) 635-8667
 Winchester City EC (Vacant)

National Capital District #2

DEC Harry Jones, N4CWP (703) 204-1781
 Alexandria EC Rich Adamy, A4GFY (703) 931-2917
 Arlington EC (Vacant)
 Fairfax EC Bob Lewis, N4SCK (703) 830-3495
 Fauquier County EC Bob Taylor, KC4CUU (703) 439-2786
 Loudoun County EC Bill Roemer, K3CUU (703) 554-2523
 Military District of Wash. Dick Lum, NH6E (703) 938-9215
 Prince William County EC Harry Vorhauer, W4PVA (703) 368-6050
 SKYWARN Net Manager Dan Gropper, KC4OCG (703) 281-7457

Northern Piedmont District #3

DEC Morris Jones, NM4R (804) 293-5203
 Greene, Albemarle County EC Hein Hvatum, N4FWA (804) 977-4438
 Fluvanna, Louisa County EC Ed Lang, KC4YLY (804) 295-5318

Upper Rappahannock District #4

DEC Jim Brodhead, KA4ERP (703) 972-2566
 Culpeper County EC Belmont Wroman, WD4OKD (703) 399-1210
 Madison County EC Tony Deivert, W4MFX (703) 948-6327
 Orange, Rappahannock Co. EC Malcolm Gray, KK4GZ (703) 854-4342
 Spotsylvania County EC Jim Brodhead, KA4ERP (703) 972-2566
 Stafford, Caroline, King George EC John Cavanagh, KB4XF (703) 373-7076

Rappahannock District #5

DEC Verlan Hall, AA4HQ (804) 776-9353
 Lancaster County EC Bill Pheris, KK4YR (804) 438-5736
 Middlesex County EC Verlan Hall, AA4HQ (804) 776-9353
 Northumberland County EC Bill Morhard, KA4DEO (804) 580-5467

Blue Ridge District #15

DEC Tom Bradshaw, WD4RIE (703) 292-2972
 Augusta County EC Doug Edwards, KA4NWK (703) 942-3787
 Rockbridge County EC Dan Welsh, KI4ZR (703) 463-7800
 Rockingham County EC Zane ("Rusty") Bowman, N4YET .. (703) 833-5565

Official Emergency Stations in Virginia Districts 1, 2, 3, 4, 5, & 15

Northern Shenandoah District #1 Rick Fravel, N4FNT
 National Capital District #2 Dick Lum, NH6E
 Geri Sweeney, N4GHI
 Northern Piedmont District #3 (Vacant)
 Upper Rappahannock District #4 David ("Spike") Boyd, K9MX
 Jim Brodhead, KA4ERP

Rappahannock District #5 (Vacant)

Blue Ridge District #15 John Scheufel, WA4DTE

Steven Czaikowski, WB4ZTR 8/29/91

SKYWARN TRAINING SCHEDULE

Preliminary Schedule

October

- Oct 1 (Tues) Basic Spotter training class, 7:00 - 10:00 p.m.
National Weather Service, Washington Forecast Office
Sterling, VA
- Oct 7 (Mon) Skywarn Hurricane training class, 7:30 - 9:00 p.m.
National Weather Service, Washington Forecast Office
Sterling, VA
- Oct 24 (Thur) Basic Spotter training class, 7:00 - 10:00 p.m.
Location to be announced
Calvert County, MD
- Oct 25 (Fri) Basic Spotter training class, 7:00 - 10:00 p.m.
Prince George's County Office of Emergency Preparedness
Landover, MD

November

- Nov 8 (Fri) Basic Spotter training class, 7:00 - 10:00 p.m.
Vienna Community Center - Sponsored by Vienna Wireless
Vienna, VA.
- Nov 14 (Thur) Basic Spotter training class, 7:00 - 10:00 p.m.
Martinsburg, W VA
- Nov 23 (Sat) Skywarn Basics II training class, 1:00 - 3:00 p.m.
National Weather Service, Washington Forecast Office
Sterling, VA

December

- Dec 4 (Wed) Winter Storm class, 7:30 - 9:30 p.m.
National Weather Service, Washington Forecast Office
Sterling, VA
- Dec 5 (Thur) Basic Spotter training class, 7:00 - 10:00 p.m.
Front Royal, VA
- Dec 10 (Tues) Skywarn Basics II training class, 7:00 - 9:30 p.m.
Montgomery County Office of Emergency Preparedness
Rockville, MD

There is no charge for the classes. Pre-registration is required.

For registration and further information call the National Weather Service Office: (703) 260-0209.

Marine Corps Marathon

The annual Marine Corps Marathon will be conducted on 3 November and a lot of help will be needed for Amateur Radio communications. The operation is big, involving 13,000 or 14,000 runners. About 100 operators will be needed. Many will ride in military and volunteer civilian ambulances, while others will be stationed at key traffic or crowd control points. This year there is a special requirement for Amateur TV to track the lead runner.

The Pentagon ARC is coordinating the Amateur Radio support. If you can spare a day, see the Pentagon ARC column on page 33 for numbers to contact to volunteer. You can be sure your help will be appreciated. The Marines will even give you a free lunch and a Marathon T-shirt.

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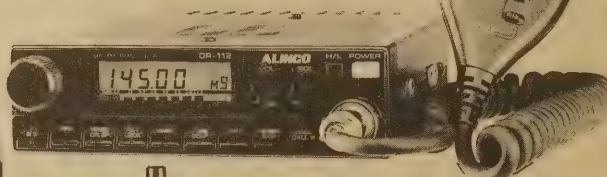
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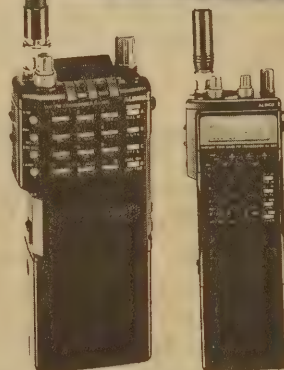
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DJ-160T - 2-Meters
DJ-460T - 440 Mhz.
DJ-560T - Twin Bander

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Traffic Handling is Fun

Geri Sweeney, N4GHI

Virginia Section Traffic Manager

Traffic handling is fun. Aside from making many new friends, new skills learned on nets enable one to be of more assistance in times of emergency. Listening to CW nets and following along as stations go off frequency to pass traffic facilitates an understanding of 'Q' signs used and traffic format. As your speed builds, you might want to involve yourself as a liaison from a local net to a region net. Many Virginia traffic handlers monitor local PBBS (packet bulletin boards) to deliver incoming traffic. To become a traffic handler - whether on 2-meters, packet, or HF - join a local net. Following is a list of Virginia Section Traffic Nets. You're invited to check in.

Net Name	Net Abbreviation	Mode	Frequency	Time	Net Manager
HF Nets					
				(local)	
Virginia Traffic Net	VTN	Phone	3907	1:00 p.m.	W4JLS
Virginia Sideband Net	VSBN	Phone	3947	6:00 p.m.	KI4BR
Virginia Net - Early	VN	CW	3680	7:00 p.m.	N4GHI
Virginia Net - Late	VN	CW	3680	10:00 p.m.	WB4KSG
Virginia Late Net	VLN	Phone	3947	10:15 p.m.	NW3K
2-Meter Nets					
South Tidewater	STARES		146.97	9:00 p.m.	N4WQJ
Shenandoah Valley	SVEN		146.22/82	7:15 p.m.	WB4MUJ
Northern VA Tfc Net	NVTN		147.30/90	7:30 p.m.	NJ3H

These NTS (National Traffic System) nets are all sponsored by the ARRL. Each net must send liaison stations to support local/region/area nets.

In addition, the Virginia Fone (VFN), although not an NTS net, meets daily at 3947 kHz at 2100Z and at 2330Z. The manager of the VFN is K4DOR. This net serves a very useful purpose in helping with Virginia traffic.

Virginia holds a weekly discussion/training session each Monday immediately after the 6:00 p.m. voice net on 3947. If you are unable to make this session, questions can be addressed to N4GHI @ W3TAI.

VA-DC-MD Hams Support 1991 Multiple Sclerosis 150K Bike Tour

The annual Multiple Sclerosis 150-kilometer (approximately 95 miles) bike tour was supported by 40 hams over a two-day period, 18-19 May, in Northern Virginia's Loudon and Prince William Counties. Approximately 2000 cyclists participated in the event. Ham radio provided communications ensuring safety and passing health and welfare traffic at the various rest stops, with the six ambulances supporting the ride, and with the 15 "sag wagons" used to assist the cyclists. Net control was located at High Roads Center. Two "bicycle-mobile" hams, Mike - W3CCV and Terry - KB2HPJ participated as ride marshals in the tour and provided on-the-spot communications.

Special thanks is due for the use of the three repeaters: Wes Boxwell - WA4TSC for the 147.300 repeater, the Herndon Repeater Group for the 145.310 repeater, and Sandy - WB5MMB for the AMRAD Portable Repeater.

At the August 5th awards ceremony, the National Capital Chapter of the National Multiple Sclerosis Society presented a plaque to the Ham Radio Operators in grateful appreciation for distinguished service for the 1991 150K Bike Tour.

**The Goddard and Tri-County
Amateur Radio Clubs
proudly present:**



HOLIDAYFEST 91
A Ham and Computer Fair

to benefit the
**Prince George's County
RACES/ARES, INC.**

December 8, 1991

8:00 AM - 4:00 PM

at the
**Prince George's
Community College
Campus
Largo, Maryland
(EXIT 15A) CAPITAL BELTWAY**

**TALK-IN: 147.180+ 145.73 SIMPLEX
146.835- 444.65+**

**Donation
\$4.00**

**Unlicensed Spouses
& Children under 12
are FREE**

**Hard
Surface
Tailgating
(weather permitting)
\$5.00**

**AMATEUR
EXAMS
WILL BE GIVEN
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TABLES:**

**\$15.00
til Aug. 15th**

**\$18.00
Aug. 16th - Nov. 23rd**

**\$22.00
Nov. 24th - at door
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**Each table includes
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**Plenty of FREE
HARD SURFACE
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Commerical Vendors must have proper Sales Tax/License Certificates available

**THE PERFECT PLACE TO FIND
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FOR THE WASHINGTON AREA'S
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CARPETED DISPLAY AREA**

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301-572-2326**

SRAM - 034

(Soviet Radio Amateur Movement)

Edited by Dexter Anderson, W4KM

{Those of you have been following the SRAM column in recent months may have been a little better prepared for the dramatic developments that have taken place in the USSR the past few weeks. It has been quite obvious that the Amateurs of the USSR have been very outspoken in their demands for democracy in their country. You may not have been prepared, however, for the report that an Amateur Radio station was operating from the Prime Minister office inside the Parliament building during the coup and that Boris Yeltsin was photographed using the station! (See W5YI report September 1)! Future SRAM columns will be reporting on the changes which will be occurring in the USSR. It should be very interesting to follow. - Auto-Call Editor}

[Comments in square brackets are by translator]

[Summary translations from **SOVETSKIY PATRIOT** newspaper, published weekly by the military training organization DOSAAF. Most amateur news appears in the column "**NLD**" (**Na lyubitel'skikh diapazonakh - On the Amateur Bands**) edited by Boris Grigor'yevich Stepanov, UW3AX.]

[Since January 1991, a sequential number has appeared on each page of "SP" and the only precise date given in each issue is the "signed-to-press" date at the bottom of the last page. The sequential number and the signed-to-press date will be cited to provide unique identification.]

SOVETSKIY PATRIOT #21, May 1991, signed to press 21 May 1991, NLD-1791:

Results have been tallied for the off-site participants in the team shortwave radiocommunication championship, which took place within the framework of the Good Will Games; the on-site portion took place in Seattle. In the single-op category, N2IC/Ø won with 3103125 points. The only non-American in the top ten was HAØDU, who took 6th place. In the collective-station category, K8AZ came in 1st with 3361887 points, UL8LYA 4th with 1525248 points, UB3IWA 7th, UB3JWW 8th, and UZ4WZA 10th. In the multi-transmitter category, NX1H came in 1st with 1795040 points, LY2ZO 2nd with 1719630 points, UB4CWW 4th, and UZ6LXM 6th. Five hundred participants who accumulated 67039 points or more will receive souvenirs -- footballs with the emblem of the championship. Memorial pins will be given to 198 sportsmen who contacted at least 30 on-site participants. Memorial diplomas [certificates] will be issued to around 800 sportsmen who contacted 5 or more on-site participants.

A Soviet-Finnish expedition is expected to operate 4J1FS from 23 through 28 May 1991. Transmitting frequencies: 1832, 3501, 7001, 14001, 21001, and 28001 kHz - CW; 1852, 3645, 7045, 14145, 21245, and 28445 kHz - SSB. On the WARC bands it is planned to use 10101, 18069, 18145, 24891, and 24945 kHz. It's possible that the station will operate RTTY and also Packet Radio on 14082 kHz ±QRM on 20 meters and on the traditional RTTY, AMTOR, and PR frequencies on the other bands. Soviet radio amateurs are to QSL to UW3DH, P. O. Box 930, 101000 MOSCOW.

SOVETSKIY PATRIOT #22, May 1991, signed to press 28 May 1991, NLD-1492:

A marked worsening of postal service is leading more and more often to information on events conducted by local clubs and federations of radio sport not getting into the newspaper in good time. The average delivery time for letters already exceeds a month. Send information not later than three weeks prior to the beginning of an event and communicate with UW3AX (207-68-89) to verify receipt. Also, delivery times for the newspaper have grown. In order to make necessary corrections in the preparation of "NLD," we need your help. We ask readers of "NLD" to advise us by postcard when they received this issue.

(Continued)

SOVETSKIY PATRIOT #24, June 1991, signed to press 11 June 1991, NLD-1494:

Apply for the "70 Years of Komi" certificate to ODR¹, P. O. Box 1247, 167001 SYKTYVKAR. From UA9XC.

Radio stations EK1ØØRW and R1ØØRW of the expedition dedicated to the 100th anniversary of the Transsiberian Railroad will operate until 1 July 1991. EK1ØØRW is traveling from Vladivostok to Chelyabinsk, operating from each oblast' for two days from 2345 to 0015 UT on 7060 kHz. R1ØØRW is operating from Novosibirsk and goes on the air for traffic daily at 0900 UTC on 14160 kHz. QSL cards for EK1ØØRW are to be sent to P. O. Box 44, 630093 NOVOSIBIRSK, and for R1ØØRW to P. O. Box 1, 630092 NOVOSIBIRSK. A diploma may be issued for contacts with these stations; conditions will be announced at a later date.

RU1K is to be operated by a group of Rovno radio amateurs from 14 through 17 June 1991. The "Cossack Graves" certificate will be issued for one contact with the station and costs one ruble. For an RU1K QSL card only (this includes SWLs), send your QSL and an SASE to P. O. Box 67, 266028 ROVNO. From UB5KF.

I2RLX and IT9AZS are expected to operate from Afghanistan as YAØCW (CW) and YAØDX (SSB) from 13 through 23 July 1991.

SOVETSKIY PATRIOT #27, June-July 1991, signed to press 2 July 1991, NLD-1497:

An expedition of the QRP club will be on the air from 1 July through 23 August 1991. Its station EK9QRP will be following by a fraction bar and the number of the (former) callsign area from which EK9QRP is operating at the moment. It will be active on CW, SSB, and RTTY on the usual QRP frequencies. A memorial photograph will be sent for working EK9QRP in three call areas, and a memorial diploma [certificate] will be sent for working it in all six call areas from which operation is planned. Send a QSL, an SASE, and 40 kopecks for the photo and 90 kopecks for the diploma (both are issued free for RTTY contacts) to UW9CX, c/o A. N. Trushkov, P. O. Box 146, 610131 SVERDLOVSK-131.

An expedition of the "Don" Association of Radio Amateurs and Don Cossacks will take place from 13 July through 4 August 1991, possibly using the callsign R42ØA. Memorial prizes will be awarded to high scorers. From UA4AM.

Special station UTØN will be operated on 16 July 1991 from the "Radio-TLUM" Ukrainian Language Society [Obshchestvo lyubiteley ukrainskogo yasyka "Radio-TLUM"]. To join this society, it is sufficient to conduct two contacts in Ukrainian with this station on different bands. From RB5NC.

SOVETSKIY PATRIOT #28, July 1991, signed to press 8 July 1991, NLD-1498:

In order to cover costs associated with processing QSL cards received from abroad and sent abroad by the Central Radio Club, payments will be required effective 1 July 1991: Five rubles for each individual station and each observer [SWL], and 10 rubles for each collective station. Handicapped amateurs, schoolchildren, and school collective stations are not subject to this charge. The price of radio amateur diplomas has also been increased -- to 3 rubles (all diplomas of the FRS of the USSR and the CRC of the USSR, and several foreign ones) and to 5 rubles (all other diplomas distributed by the CRC).

¹An organization abbreviated ODR (Obshchestvo druzey radio - Society of the Friends of Radio) sponsored amateur radio in the USSR in the 1920's. It would be extremely interesting if ODR were being brought back to life as it could conceivably replace DOSAAF as the organization sponsoring Amateur Radio. Key questions that would need to be addressed in transferring sponsorship to another organization include financing the Soviet Radio Amateur Movement and making premises and equipment available for Amateur Radio activities.

The following were recognized as the best in the U-DX-C activity day: IK1APP, RA6LRV/JT, KUØS, SP5DXU, RV6LA, RW9AB, UA4PY, UA4UBC, UA4ZA, UA6PB, UA6XT, UA9WZ, RA9XG, UAØQJL, UB5HJR, UC2IP, UD6CF, RH8AA, UI8UAA, UJ8JJ, UL7MG, UM8MBA, UO5OK, LY2BDP, YL2MF, ES4AA, and Y42DA. The club members with the best scores were RB4IRO, RW9WA, UA3QG, and UA3-170-472. That day, 357 qualified for the U-DX-C diploma. Fifty radio amateurs who scored the highest will receive medals struck in memory of G. Khodzhayev, UA4FW. At the present time, U-DX-C has 230 members and 65 candidate members. The club has set up a fund to be used in organizing and carrying out various DXpeditions. A U-DX-C "round table" takes place on Saturdays and Sundays on 14300 kHz at 1000 MSK [0700 UTC in the summer] with UA4PNL serving as net control. From RBØNZ.

UL8GAK/UL2M operated from 1988 to 1990. QSL cards have been dispatched, but anyone who didn't receive a card may send his QSL and an SASE to I. V. Andreyev,, 25 Bolotnikov St., Apt. 13, 480049 ALMA-ATA. From UL8GAK.

SOVETSKIY PATRIOT #29, July 1991, signed to press 16 July 1991, p 15, NLD-1499:

The All-Union "Field Day" Competitions [Vsesoyuznyye sorevnovaniya "Polevoy den'"] for "Radio" magazine prizes will take place 27 - 28 July 1991. Reports are to be sent to Judges' Collegium, MGSTRK², 9/10 Vernadskiy Prospekt, 117311 MOSCOW.

The international scientific-tourist expedition "Russian America" started on 10 July and is to continue until 15 September 1991. Until 21 July the expedition station EK25ØRA will operate from Vladivostok, on 22 - 26 July from Petropavlovsk-Kamchatskiy, and then from Alaska. An operation is possible from Ratmanov Island (IOTA AS-61), Little Diomedede [Malyy Diomid] Island, and from the scientific-research vessel "Akademik Korolev." Rules for a "Russian America" certificate are being worked out. QSL to UA9OBA, P. O. Box 1, 630092 NOVOSIBIRSK-92. From UA9OBA.

SOVETSKIY PATRIOT #30, July 1991, signed to press 23 July 1991, NLD-1500:

In the "Chernobyl" memorial event, the best results were turned in by UB5EAS (multi-band) and UB5ERS (160 meters). Other high-scoring stations were RB4GWL, RA3QY, UB5-073-53, and LZ2ZL. From UY5XE.

In the UCWC activity days dedicated to the 200th anniversary of S. Morse's birthdate, the best results by category were turned in by UZ6LWB, UA3-155-28, UV3AIN, and UA3-073-4488. From UA4YR.

Stations of the expedition dedicated to the 500th anniversary of the Zaporozhets Cossack movement [? - 500-letiyе Zaporozhskogo kazachestva] will be active from 21 through 28 July 1991: RY1QH (Zaporozhskaya Sech', Khortitsa Island), RY2QT (Tokmakovskaya Sech'), RY3QB (Bazalukskaya Sech'), RY4QM (Mikytinskaya Sech'), RY5QC (Choromlykskaya Sech'), RY6QO (Oleshkovskaya Sech'), RY7QK (Kamenskaya Sech'), RY8QN (Novaya Sech'), and RYØQQ (Tokmak, the base station of the expedition). Reports and QSL cards for expedition stations go to P. O. Box 82, 332530 TOKMAK (Zaporozhskaya Oblast'). From UBØQZ.

An expedition consisting of UA9KAA/4K4, UA9KAF/4K4, UA9KBE/4K4, UA9KW/4K4, and possibly 4K4DX (YL2DX) will operate from 20 through 30 July 1991 from Sharapovy Koshki Island (a new island for the IOTA certificate listing), on CW, SSB, and possibly RTTY. QSL cards should be sent to UA9KI, P. O. Box 4, 626602 SALEKHARD-2. From UA9KW.

²MGSTRK = Moskovskiy gorodskoy sportivno-tekhnicheskii radioklub = Moscow City Sport-Technical Radio Club.

The
Columbia Amateur Radio Association, Inc.
Presents It's 15th Annual

CARA HAMFEST

SUNDAY, October 13, 1991

8:00 AM to 3:30 PM

Howard County FairGrounds

Computers - Amateur Radio - Electronics

Proceeds will benefit CARA Scholarship, Novice Classes and Repeater System (Including Open Autopatch)

40,000 SQ. FT. of Indoor Display Area

Large Outdoor Tailgating Area - Covered Areas for Inclement Weather

*** AMATEUR EXAMS WILL BE GIVEN ***

TALK-IN: 146.52 Simplex, and
147.735/147.135 Repeater, - Crossedlinked
to 222.32/223.92

GENERAL ADMISSION: \$5.00
(Unlicensed Spouse and Children Free!)

TAILGATING: \$10.00 Per Space
(Includes 1 General Admission per space)
Call (301) 465-5934 for Advanced Reservations

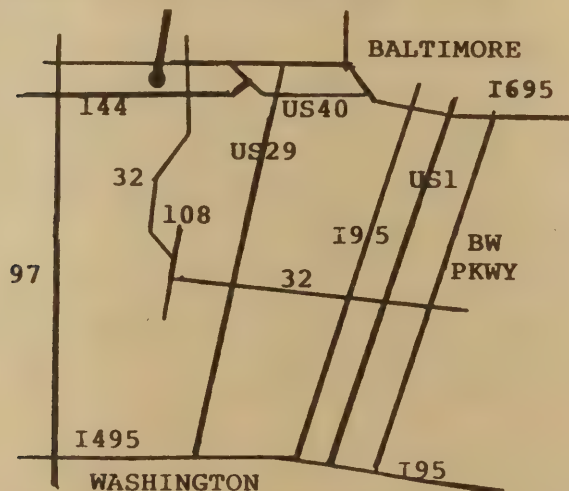
TABLES: 1-4 \$20.00 each, 5 or more \$18.00 each.
(Includes one vendor admission per table)

For table information and reservations write or call:

CARA Hamfest Committee
P.O. Box 911
Columbia Maryland, 21044
(301) 465-5934

After September 20, 1991 please call prior to mailing

HOWARD COUNTY FAIRGROUNDS



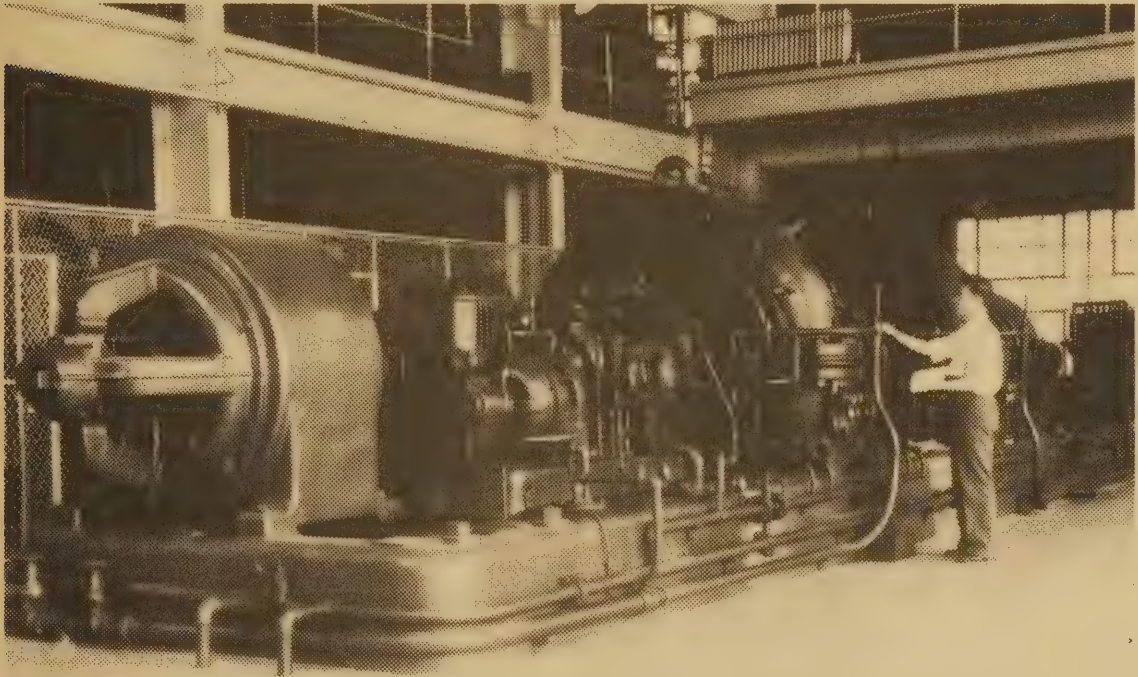
Nostalgia

Frank Roddy, K3SE

Not many people remember the Alexanderson Alternator which went into service in 1920. About 20 of them were used throughout the world up until about 1960. One still remains in Sweden. It is on 17.3 Kc and signs SAQ. It isn't actually in service but is started up for demonstrations to visiting VIPs. The Smithsonian also has one but it is being held in storage in Suitland. It takes up so awfully much space, it may be some time before it goes on display.

The one I operated in 1937 at New Brunswick, New Jersey, produced 200 kw and operated at 20 kc (KHz to you young squirts). It sounded just like crystal control. The Air Force used one at Marion, Massachusetts to cover the Auroral Zone (Greenland).

The Famous Alexanderson Alternator



Frank Roddy, K3SE at the controls. 1937 Photo

A few more people may remember the ARC, another early transmitter. An Englishman named Duddell was tinkering with a DC ARC and connected an inductance across it. To his surprise a tone came out of the ARC! By using a short-circuited turn at the end of the inductance he found he could change (lower) the inductance slightly and put the "back wave" at a higher frequency. Duddell published his findings in 1900 and other experimenters, including Poulsen, took the idea up into the radio spectrum. The Poulsen ARC was the commercial model used mainly on shipboard but there were many land stations also. This was a true CW signal and not splattered over the spectrum as was the SPARK! However, it fluttered somewhat in frequency and operators usually described it as a "mushy" note.

Another thing they found was that it was more stable if operated in an alcohol vapor. It had to be grain alcohol. It seemed to consume enormous quantities of alcohol!

□ □ □

Recognitions

Congratulations to "Spike" Boyd - K9MX on having his article on Amateur Radio growth printed as the lead article in **WorldRadio** magazine's September issue. Spike is our columnist for both the Pentagon ARC and the Stafford ARA and has contributed several special feature articles for Auto-Call. (See August page 31).

Congratulations to Kenneth L. Cohen - NI3F on being elected Chair of the Howard County Public Ethics Commission. The five person board oversees integrity of local government, including employees, elected officials, and citizens serving on boards and commissions, insuring the highest level of conduct in all official actions. Rabbi Cohen is the spiritual leader of Beth Shalom Congregation in Columbia, MD and Section Manager of the ARRL Maryland/DC Section.

At its August Meeting, the **Foundation For Amateur Radio** voted to contribute the sum of **\$1,000 to the ARRL WARC Fund** to show its support of the Leagues efforts in protecting our frequency spectrum at the World Administrative Radio Conference coming up in early February.

Tandy Corporation has taken delivery of the first shipment of their 15,000-unit order of *Now You're Talking*, and the book is now available in Radio Shack stores around the country. There are dozens of hams at Tandy headquarters and they have their own ham club and 2-meter packet bulletin board. Also, Tandy/Radio Shack has just introducing a new 2-Meter synthesized VHF-FM handheld transceiver which is expected to be carried in nearly all Radio Shack stores.

(Thanks ARRL Letter 8/07/91 and W5YI Report 8/15/91)

Silent Keys

John Pich - K3AKR became a Silent Key August 30. John was an avid contesteer and an early (if not charter) member of the Naval Research Laboratory Amateur Radio Club. He was also active in Air Force MARS. He received commendations from the Commanding Officer of NRL and the Secretary of Navy for his communication efforts in connection with the Johnstown Flood of July 1977. He headed the NRL VHF station and Field Day activities for many years.

Submitted by Ruth Phillips - K3AGR

Widow's Assistance Program

For many years, the Foundation for Amateur Radio has been running a volunteer program known as the Widow's Assistance Program. A small group of reliable volunteers assist widows or other family members in disposing of Amateur Radio and related equipment. They will assist in establishing realistic prices and offer free advertising in the Auto-Call magazine for equipment handled under the Widow's assistance program. They will also give advice on other avenues of disposal. The widow or family member must make the initial contact with the Foundation when they feel they are ready to consider the step. WAP does **not** initiate the contact on the recommendation of well intentioned friends.

Volunteers to work on this program are continuously sought. We need good geographical distribution so no one volunteer has to travel any great distance. If you are willing to provide just a few hours a year to this very worthwhile program, please let us know.

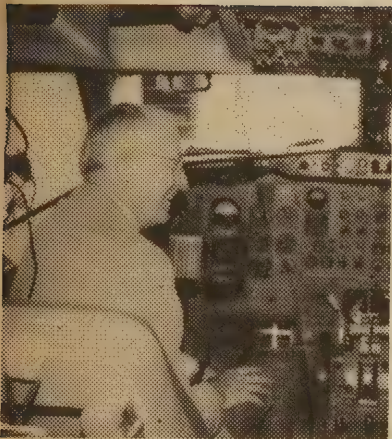
We would like to express appreciation to several people who have been most helpful in the past month. They are Bob Milligan, KI4MB, Randy Kelly - WB4MJF, David Cowhig - WA1LPB, Steve Schneider - WB4EEA, Ron Bolton - WU4G, the people they called in to help them, and the ones I forget to mention. Thanks, Fellows.

K4LMB

Foundation For Amateur Radio

Ham of the Month

Bill Grenfell, W4GF



Since May of 1971 we have been reading Bill Grenfell's *FCC Highlights* in the Auto-Call. Prior to that, Bill was Chief of the Rules and Legal Branch of the FCC and later Chief of the Amateur and Citizens Radio Division. He was always considered one of Amateur Radio's real friends within the Commission.

Bill's career with the FCC began in 1940 when he took the examination for Federal Radio Inspector and trained in monitoring techniques at the Portland, Oregon, monitoring station. He was then assigned to Seattle, Washington, as an Assistant Monitoring Officer in the FCC Radio Intelligence Division. In 1941 he was transferred back to Portland as the Radio Inspector. This position covered all classes of radio inspection, including ships, broadcast stations and Amateurs on occasion.

World War II came along and Bill joined the Navy as a Lieutenant J.G. He completed his radar and radio training at MIT, where he graduated first in his class, and earned a full stripe. Next came two stripes and a Navy tour at the Bureau of Aeronautics in Washington, D.C.

In 1946, Bill left military aeronautics and returned to the FCC as a radio engineer assigned to the Commission's Frequency Allocation Division. In 1952 he became Chief of the Amateur Branch of the Amateur and Citizens Radio Division, where he so ably guided the course of Amateur Radio in the U.S. until his retirement from the Commission in 1971.

Bill learned the code from the Boy Scout Handbook back in 1926. He was first licensed as a Radio Amateur in 1930 and received the call W7GE. In 1931 he upgraded to a Class A license and got on phone. After earning a BSEE at the University of Oregon in 1935, Bill worked for the Washington State Highway and Police Departments as a radio technician, responsible for all outside maintenance and installation.

Bill's activities are legend. His first rig was a 210 oscillator with a slop jar rectifier. With this equipment he was soon an active traffic handler and avid contester and DXer. He has taken part in five separate DX-peditions to Curaco and many of us have enjoyed his photography and the talk shows of these trips. He has been a member of PVRC since 1953, and served as Secretary and Treasurer and then as President in 1955. He is a member of the A-1 operators' club; the First Class Operator Club (FOC) and the FOC of England; holds WAC, DXCC and WAZ awards. He is a Life Member of the ARRL and an Assistant Director of the Roanoke Division; a Life Member of QCWA and has served as President of both the Washington D.C. Chapter and the Northern Virginia (Vic Clark) Chapter of QCWA. He holds an Extra class Amateur license and has become somewhat of a computer buff. (He provides copy for his Auto-Call column on disk every month.) He has also been an active pilot, holding a private pilots license with instrument rating and owning his own aircraft. He can tell some great stories about some of his flying experiences!

In recognition of his many accomplishments and contributions to the promotion and advancement of Amateur Radio, Bill was awarded the Roanoke Division Service Award in 1974. It is certainly long overdue that he be recognized as the Foundation's **Ham of the Month**.

Nominated by Bill Miller, K4MM
(Notes from a presentation speech
made by Hal Richmond - W4CIZ in 1978.)

Scout Jamboree On The Air

October 19-20

Jamboree On The Air (JOTA) is an annual Scouting/Amateur Radio event sponsored by the World Organization of the Scout Movement. This year, JOTA-91 will be held on the weekend of October 19-20.



The JOTA operation is from Saturday, 0001 local time, to Sunday, 2400 local time, though some activity flops over from Friday to Monday to take advantage of DX time differences. The calling frequencies are:

Add your voice or fist to those of the thousands of hams who will be participating in this activity and invite some Scouts into your shack or club station so they can take part in this important Scouting event. Give them a first hand introduction to the challenges and the wonders of Amateur Radio.

Thousands of Amateur Radio stations around the globe participate each year in one of Scouting's largest international events. Many countries issue special radio call signs for Scouts to use during the JOTA weekend. Some good ones to listen for are K2BSA, the BSA Headquarters in Texas; HB9S, the World Scout Bureau HQ in Switzerland; and GB2GP, located at Gilwell Park, England. JOTA is open to Scouts and Scouters of all ages, to Amateur Radio operators; and in fact, to anyone interested in doing a Good Turn for Scouting and Amateur Radio. During the weekend, participants will have the opportunity to carry on local and international conversations, establish pen-pal friendships, and arrange to exchange photos, badges, patches, and exotic QSL cards.

In the United States, many BSA councils and district hold Camporees to coincide with the JOTA weekend, where Amateur Radio operators set up portable "Field Day" type operations, giving campers a chance to exchange greetings with Scouts everywhere.

CW: 3590, 7030, 14070, 21140, 28190
Voice: 3940, 7290, 14290, 21360 28350

Please move off these calling frequencies to avoid QRM.
PACKET, RTTY, SSTV, ATV on usual frequencies.
Check the Novice frequencies.

The Jamboree is not a contest. Exchanges should be relaxed and relate generally to Scouting and Amateur Radio. QSLs are appreciated. Brief reports of interesting incidents and photos with captions are especially welcomed for the BSA report to the World Bureau. Send them to JOTA Coordinator, International Division, S221, Boy Scouts of America, 1325 Walnut Hill Lane, PO Box 152079, Irving, TX 75015-2079, not later than November 15.

The JOTA-91 Amateur Radio focal point for the National Capital Area Council (NCAC) is Mr. David Williams, K7HMP. Amateur Radio clubs and/or operators interested in JOTA-90 activities are encouraged to contact Mr. Williams for additional information on Scout groups within their local area. He may be reached by phone at home on (703) 430-1594 or at the office on (202) 767-4098.

The NCAC covers the District of Columbia; the Maryland counties of Calvert, Charles, Frederick, Montgomery, Prince Georges, and St. Marys; and the Virginia counties of Caroline, Culpeper, Fairfax, Fauquier, King George, Loudoun, Prince William, Spotsylvania and Stafford.

✻ ✻ ✻

Metropolitan Communications Network

Representing Six Meters in the Greater National Capital Area

Meetings: Quarterly, on the second Sunday of the month.
Time and place to be announced.

Repeater: N3AGB/R, 52.250 MHz in; 53.250 MHz out.

On-the-air: Saturdays at 1900 hours (Standard time).

Mailing: Bob Sporn - WA3GGO, 9927 Cottrell Tr, Silver Spring, MD 20903

Information: Bob Sporn - WA3GGO (301) 434-1719

While at Nag's Head, North Carolina, we checked in with N4JXG, the Nag's Head repeater of the Outer Banks Amateur Radio Club. Of the twenty-four check-ins about half were like yours truly - visitors from out of town.

Tony Musero - K3UKW of Philadelphia, Pennsylvania, sent us two pages of used gear available for sale. He issues these lists several times a year. Tony also includes a copy of "The 50 MHz DX Bulletin," published by Harry Schools - KA3B, who is also in Philadelphia. This 22-page bulletin is issued 24 times a year.

THE SUNDAY MORNING COFFEE NET (50.4 MHz AM) AT 0900 HOURS EST.

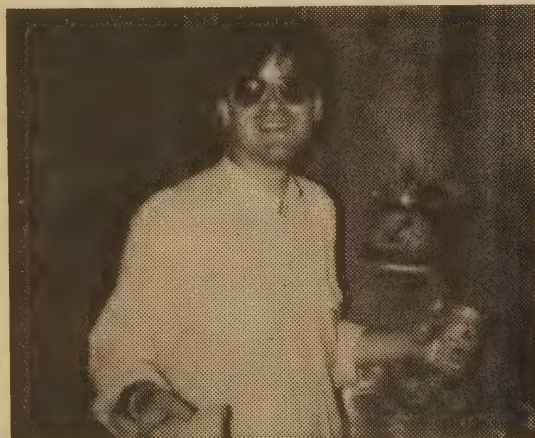
The number of check-ins has increased. When the transmitting section of the HA-460 failed, we continued with our 22-year-old WRL Tech-Ceiver, long kept on for sentimental reasons - our first rig, assembled from a kit.

MARYLAND FREESTATE SIX METER SIDEBAND NET (50.125 MHz) SUNDAYS AT 1900 HOURS EST. This net continues to flourish, with our regular check-ins and added newcomers from time to time. Join us on Six.

Bob - WA3GGO



Bob Milligan - KI4MB
President



Christian (Chris) Kushay - KA3LJR
Vice President



Mt. Vernon Amateur Radio Club

Meetings: Second Thursday of Each Month, 7:30 p.m. (except December)
Mt. Vernon Governmental Center, 2511 Parkers Ln., Alexandria
Repeater: WD4PDP/R 146.055 input 146.655 output
Nets: Every Tuesday at 8:00 pm (0100 UTC Wednesday's)
Starts on 2-meter then moves to 10-meter on 28.405
Information: Chris Morrow, W4WYL (703)765-5964
Training Classes: John Forrest, WZ4A (703) 971-3905
Mailing Address: c/o Frank Mackey, N4GUS, 8072 Athena St., Springfield, VA 22153

August's meeting had no program because the gentleman who was scheduled had a sudden requirement for going out of town. No problem - we had fun anyway. First we enjoyed a spirited and rather long business meeting and then we simply socialized. So this month's THANKS goes to each and every one of the 76 people who attended the meeting. (Did you say 76 attended the meeting?!! Yes, a new high - and we were awfully glad to see everyone there!)

Of those 76 attendees, we WELCOME OUR VISITORS: Dale Hazelwood NH6CI, Judy Van Lue (XYL of Ken W4RUS), Don Wills, Daniel Keegan KD4CNV, Dave Keegan KD4CNU, Drew Daffron KC4IUP, Mary Daffron, Will Schmitt KD4CNX, Bill Schmitt KD4CNS, Pam Nestell (XYL of Jim-call any day now), Jessie and Patrick Cowhig (XYL and son of Dave WA1LBP). We also WELCOME NEW MEMBERS: Stephen Buck (no call yet) and T.J. O'Brien AC4HW. We're pleased you chose MVARC as a club to join...THANK YOU! Frank KD4CCT passed his written General - good work!...we know it won't be long before you get the code.

MVARC has decided to offer amateur radio exams. We're still organizing, but it looks like they will be held at Lee District Park in Fairfax County perhaps as frequently as monthly and we're planning on offering them free of charge. We'll keep you posted as plans change and firm up!

By publication date of this issue, MVARC's Fall classes should be underway in Alexandria. Walk-ins are welcome; anyone who wants information should give John WZ4A a call (703-971-3905).

Everyone is invited to join the "8-year-old net" which tries to meet each evening at 28.347. You don't have to be 8 years old to be a participant...they'll talk to us old folks too!

October's program is tentatively scheduled to be about amateur TV and in November an ARRL representative will talk about WARC 92. December brings the Christmas party. Come join us on October 10th...we always have fun!

Marci, KM4VM

Proceedings of the ARRL National Educational Workshop

The brand new 1991 edition of *Proceedings of the ARRL Educational Workshop* has just come from the printer. Copies are available for \$12 plus \$3 for shipping and handling. If you order right away, you can get the 1989, 1990 and 1991 copies all for the cost of the one edition. This special offer is good only through November and subject to availability.

If you were fortunate enough to attend the workshop at Goddard this year, you will certainly want a copy and if you are considering gunning a workshop of your own, here is the information you need. The Proceedings contains an article on how to run an educational workshop and reprints of papers which have been presented. Sample titles include: "A Sample Lesson Plan for a Combined General/Advanced Class," by Larry Luchi, W7KZE; "Computer Communications Club," by Fr Dan McLaughlin, KA3VMA; "Morse Code as Language," by William Pierpont, NØHFF; and "Ham Radio and Teacher Training," by Gilbert Yanow, K6TOS. Please spread the word to those you know who are interested.

(Letter from Rosalie White, WA1STO, ARRL Educational Activities Manager 8/12/91.)

Pentagon Amateur Radio Club

Meetings	Monthly, on the second Wednesday of the month. Noon. PARC clubroom (5B272), The Pentagon
Repeater:	K4AF/R, 444.55 MHz. CTCSS 88.5 sometimes in effect.
Packet:	145.07 Digi - K4AF, Mailbox - PARC, Node - PNTAGN
Mailing:	P.O. Box 47063, Washington, DC 20050
Information:	David G. Boyd - K9MX (703) 659-6241 (H) William Klein - N4VBW (703) 697-8157 (O) or (703) 590-2546 (H)

The big news this month is the promotion of Rod Linkous (W7OM) to major general (two stars) in the US Air Force. General Linkous has been a faithful supporter of PARC for years and - despite the press of his duties - actually manages to visit the club and operate the equipment from time to time. And he may soon have a perfect DX score; the only active country on the DXCC list he doesn't have is Albania!

Paul Senness has managed, with a simple antenna and 100 watts, to demonstrate that patience and a whole lot of skill can be more important than elaborate towers and high power. In between his sea duty assignments, he managed to work more than 100 countries and finally got all the confirmations. Now, if we can just persuade him that the postal service can probably be trusted with his cards, he may actually wind up with a DXCC certificate. He also was badly embarrassed when Ernie Brown went from no license to Extra in one sitting, so we expect him to take the plunge at the September exams. In fact, if he doesn't pass his extra by the end of November, he'll be taking the whole club out for lunch (and it must be true if it's in print, mustn't it?!)

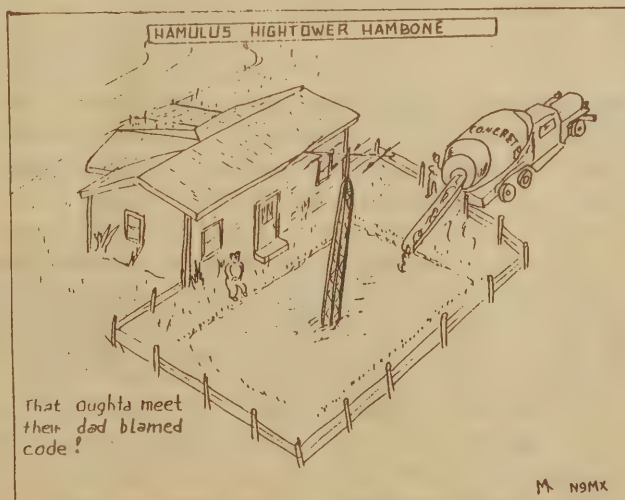
In the past couple of months, we've seen lots of interest in the Novice license, so we expect to see a whole lot of new hams in the club over the next few months. We continue to license most new hams as novices - not as no code technicians. Incidentally, the new contact Volunteer Examiner for the Pentagon is Pat Oliver, WJ0T. He will be coordinating future exams in the building, beginning with the 27 September exam. The test will begin at 1130 am and is tentatively scheduled in room 3E129.

And we need lots of help this coming November. Each year, the Pentagon ARC coordinates Amateur Radio support to the Marine Corps Marathon. This year, the marathon will be conducted on 3 November and we'll need about 100 operators to help.

Many of these operators will ride in military and volunteer civilian ambulances, while others will be stationed at key traffic or crowd control points. The operation is big, involving two nets, hundreds of volunteer helpers and some 13,000 or 14,000 runners. This year we have a special requirement for Amateur TV to track the lead runner so we can determine when we need to shift emergency equipment. If you can spare a day, we sure can use your help and the Marines will even give you a free lunch and Marathon t-shirt. To volunteer, or get more information, use any of these contacts:

- * Dick Lum, NH6E, (703) 938-9215 / NH6E
@ N4QQ.VA on 145.03 packet
- * Dave Boyd, K9MX, (703) 659-6241 / K9MX
@ KF4TE.VA on 145.07 packet
- * Don Darby, KA3VNE, (301) 843-5999
- * The Pentagon ARC from noon to 1 pm
weekdays, (703) 697-0630 / K4AF on 145.03.

Spike - K9MX



Stafford Amateur Radio Association

Meetings: Weekly, 0730 a.m. every Saturday morning. at the
"Nothin Fancy" Cafe on Route 1. All meetings are informal.
Repeater: N4SMP/R 145.27 out 144.67 in. Autopatch for members.
Mailing: c/o George Gautney - N4SMP, 9 Skyview Ct., Stafford, VA 22554-5232
Information: Dick Kirby - W4GFB (703) 720-0406 or
George Gautney - N4SMP (703) 659-5720
Packet: 145.07, W4GFB-2

Repeaters in the Washington area tend to be almost dead most of the day, but during the major commuter hours they become a lifeline for many of us. Not long ago, we got a chance to see just how useful they can be when Dick - W4GFB, found himself trapped behind a wreck on I-95 that blocked the whole road. KC4HR - KB4OB, and K9MX were just turning on to 610 when Dick announced the roadblock and the three started trying to figure out how to get around it. They hadn't solved the problem when AC4HK (yes, that's a real callsign) broke in and suggested a way through Quantico. By the time

he finished explaining the route, it was clear that the only workable solution was to gather at one point and follow him through. Thanks to the repeater and one knowledgeable ham, four SARA members managed to get to work on time despite the tie up. Darned useful, those radios!

SARA is now on the air on the 70 cm band. Signing KB4OB, the new repeater is on 443.385 and is open to any ham. It may be necessary to put a CTCSS tone on it, but if that happens the tone will be published.

Spike - N9MX

DX Packet Cluster

The local DX Packet Cluster, sponsored by the Potomac Valley Radio Club and National Capitol Dx Association, is going strong as it enters its third year of operation. The local node is generously provided by Steven, N4SR, who now lives in Woodbridge, Virginia, so it is very easy to get into the cluster.

For those not familiar with this service, it is basically a DX spotting network with about 120 members. When a person connected hears or works some DX, he or she would put it out on the packet cluster for all to see. So it is like having 100 pairs of ears listening to the band for DX. There are also many useful data bases available on the cluster including the Buckmaster U.S. callbook, the W6GO list of QSL managers, WWV reports, a MUF program, a heading and distance program, DX prefix listings, and zone listings, just to name a few. There is also a mailbox function, message function, and talk function.

There are usually stations connected from North Carolina, West Virginia, Pennsylvania, Maryland, and all parts of Virginia. The local member of both the DX Cluster and WWI is Bb - NQ4K, Denis - WD4KXB, Mike - KA4RRU, Ed - KJ4VG, John - N4LJS, and Terry - WA5NTI. So if you need any information about the Cluster, give one of us a call. It is a tremendous DX tool and a good use of Packet.

"Chasing DX" column by Dennis - WD4KXB
In Woodbridge Wireless Wireloose 7/91

NASA Goddard Radio Club

Meetings:	3rd Wednesday of the month at 5:00 p.m. Soil Conservation Road, Greenbelt Maryland, across from NASA main base at the club station (about 1/4 mile from Greenbelt Road on Soil Conservation).
Repeater:	146.835 MHz
Net:	Information net every Wednesday evening at 8:00 p.m. local time. All Amateurs are welcomed. Net control is Don Bennett - WA3MIK.
Mailing:	WA3NAN, Goddard Amateur Radio Club, P.O. Box 86, Greenbelt, MD 20768
Information:	Chuck Sommer - N4OSD (301)794-3280; Vikki Gigante - KA3PVS (301)249-2609
Training:	John Hueber - KA3PVM (301) 286-2481

Hopefully, by the time this article comes out, STS-48, which was scheduled to launch September 12 at 6:40 p.m., will be another successful mission in our memories. There is another mission scheduled for December and it will be a 10 day mission. And yes, we will be providing shuttle retransmission for it.

It is time to thank those members of the Shuttle Retransmission Team who work so hard to keep the effort going. Bill Graettinger - W3IUI, is the man that keeps the Collins radios humming during each and every mission. He is there at the club on a moment's notice and it is largely due to his efforts that we have not had any down time, radio wise, during missions. Dave Gossard - N3DRL and Jeff Nucciarone - N2BSS, act as Assistant Retransmission Directors, filling in as the need arises, whether it be to make phone calls or work a vacant couple of hours. They are also calling the station or dropping over on a regular basis to make sure the equipment and the operators are working properly. John Stolarik - K3CLG, is our property manager, and also works at keeping our forms up to date that we use for shuttle retransmission. John is also known for taking the early morning shifts and his lunch breaks to keep the effort going at those times when it is difficult to schedule operators. He also calls the Shuttle Retransmission Director to make sure that she is awake and on her way to the trailer when she is supposed to be there! Pat Kilroy - WD8LAQ, is our Public Affairs Officer and is in charge of putting together the pre-recorded announcements that you hear during quiet times. Pat is the primary voice of the club voice identification, "this is WA3NAN . . ." Pat also makes our press announcements and, in general, makes sure that publicity about GARC happens. John Mattox - N3HQL,

is our ATV expert, and when our equipment is working, he makes sure that ATV is up and running. Ron Parise - WA4SIR, makes sure the updated Keplerian Elements are fed directly to the station as new ones are published. There are so many others that make the effort work. These are just the members of the club that head up the effort, along with Chuck Sommer - N4OSD and John Hueber - KA3PVM, to keep shuttle retransmission going. Next month, we'll highlight some of the operators without whom, we couldn't keep the effort alive.

The club recently participated in the Maryland QSO Party, making 80 more contacts than we did last year. Will it be enough to defend our title? Only the results will tell. Thanks to Stan Iarosis - N2US, for heading up this effort and to those who participated, Matt Kirichok - N1FXH, Chuck Sommer - N4OSD, Jim Gass - N3CJN, Bill Graettinger - W3IUI, John Stolarik - K3CLG, Jeff Nucciarone - N2BSS, Dave Gossard - N3DRL, Roberto Aleman - WP4DLX, Pat Kilroy - WD8LAQ, and any others that we may have missed. Next is the ARRL Sweepstakes in November.

It's that time of year again, when all the associate and full members must renew their memberships in the Goddard Amateur Radio Club. Renewals or new memberships are \$12 annually. Please send your dues, by the end of October, to Ken Hersey, Goddard Amateur Radio Club, P.O. Box 86, Greenbelt, MD 20768-0086. Thanks.

New Hams: Congratulations to John Klim, Jim Doherty and Pat Gossard - N3KGY on their no code tech licenses !!! The repeater will never be the same, and we love it !!!

(Continued on page 36)

Washington Adventist Amateur Radio Association

Meetings: Last Sunday of each month, 4:00 p.m.

Sligo Church Office Building, 7710 Carroll Avenue, Takoma Park, Maryland

Information: Henry Miller, W3BWN, Box 331, Greenbelt, MD 20770, (301)474-7376

Last spring we taught a beginner-to-general class license course in conjunction with Columbia Union College. For the first time it was conducted for credit (3 elective credits) for the college students, while the non-college students audited it. Of the six students who completed the course, every one passed an FCC examination that required code (no non-code technicians). The successful graduates are: Faye Bullock - N3JSX, Barbara Grover - N3JZH, Outram Hussey - KA3YYZ, Susan Jenney - N3JSY, Larry Lathrop - N3JAW, and Owen Troy - N3JIU. Congratulations to all of you!

Our members provided communication for the April Fool's 10KM run in Takoma Park on Sunday, April 7. This race was jointly sponsored by Columbia Union College and the city of Takoma Park. We also provided communication for Takoma Park's July 4th parade. Last spring we had a wide variety of speakers whose topics included packet radio and AMSAT.

We were shocked and saddened to hear about Bob Moore's untimely death. I am speaking both as a representative of our club and as an individual. Even though he was not a member of either the club nor the Adventist community, Bob has been a very good friend to the club since we graduated our class in 1985. As a trustee of the Foundation for Amateur Radio, I worked closely with Bob in some of its endeavors (especially the F.A.R. FEST). From this vantage point was able to observe how much he had done for the Amateur Radio community. But, the good he has done went beyond the Amateur Radio community, and the world is a better place because he was here. In spite of all of his activities, he showed a real concern for Elizabeth (his wife) and John Robert (his son) (both of whom are terrific people themselves). Personally, I considered Bob to be one of my few close friends, and his absence leaves a big gap in my life. I just thank God that I was allowed to meet and know him up to this time.

Henry Miller - W3BWN

Goddard Amateur Radio - Continued

A great surprise party was held in Pat's honor at Sir Walter Raleigh's on September 3, 1991. The surprise was on her husband, Dave - N3DRL, who had no idea that she was getting her license. Dave, your face was priceless when you got the call on the air, "This is your wife..." Thanks to John Creel, Pat Kilroy, John Hueber, Chuck Sommer, Carolyn Keydash and all of the others who cooperated in this effort to provide a truly wonderful surprise! Welcome, Pat, to the crazy world of Amateur Radio!

HAMFEST UPDATE: Preparations for the Holiday Fest on Sunday, December 8, at Prince George's Community College, continue on. There will be symposiums which will run throughout the day, from 9:00 a.m. through 3:00 p.m. So far, the symposiums will be on

packet radio, antennas, Skywarn, ARES/RACES emergency communications, and others are currently being set up. In addition, the Laurel VE team will be giving free Amateur Radio exams throughout the day and at 2:00 p.m., John Creel, will run a C.W. contest, so get those keyers and pens out and start practicing! Also, we will run a shopping service. What this means is that if you are a YL or family member or friend of an Amateur Radio operator and would like to get that person something for Christmas, but don't know what, bring your shopping list to the hamfest and we'll have a group there that will help you pick out gifts. So, plan to be at Holidayfest '91. We'll look forward to seeing you there!

Vikki - KA3PVS

Herndon Repeater Group

Repeater 145.31 MHz

Meetings: On-the-air meetings on alternate Mondays at 9:00 p.m.
Repeater: N4FXP/R 145.31/144.91 MHz
Packet BBS: 145.03 MHz
Mailing: Herndon Repeater Group, P.O. Box 5073, Herndon, VA 22070
Training: Michael Weber - WB8RDN (703) 450-2304
Information: Michael Rosati - N4FXP (703) 481-8380

The Herndon Repeater Group (HRG) Novice and No-Code Technician course began on 7 September and will run through 23 November. The course is being held on Saturday mornings from 900 a.m. to Noon at the Herndon Police Station in Herndon, Virginia. We are very pleased to have four young people in the course age 9 or less. It is not too late for Novice License holders wishing to upgrade to Technician to enroll in the course. Please call either phone number listed above for more details.

HRG is again sponsoring ARRL/VEC Novice - Extra exams this fall at the Herndon High School cafeteria. Herndon High School is located at the intersection of Dranesville Road (Rt 228) and Bennett Road in Herndon. The date is Saturday 12 October and all applicants should arrive no later than 0845 a.m. Exams will begin promptly at 0900. Talk in will be provided on the HRG repeater beginning at 0800/ To register for this session, please call either phone number listed above. Although limited walk-ins will be accepted, it is strongly recommended that reservations be made. For future planning purposes, HRG intends to offer ARRL/VEC exams during April and October of each year as a service to the

ever-growing Western Fairfax/Eastern Loudoun Ham community.

All Radio Amateurs are welcome to use the HRG N4FXP/R 144.71/145.31 repeater and to join us for our on-the-air meetings on alternate Monday evenings at 9:00 p.m. The HRG Packet BBS is moving to a new QTH and should be back on the air by the time this is published. Contact any club member on the HRG repeater for more information.

Those having access to Herndon cable TV should watch for promotional ARRL Amateur Radio videotapes to be broadcast in the near future. HRG has made contact with officials of this Cable TV outlet who are very willing to provide Amateur Radio publicity and film for broadcast of many HRG activities. HRG president Mike Rosati - N4FXP and HRG publicity liaison Criag Kendall - WA3RGH toured this facility on 21 August and they are working out details for future publicity. They found that Cable TV stations are looking for programming such as this. Other FAR clubs may find outlets for their activities as well.

Until next time, see you on the 145.32 N4FXP/R machine.

Mike - WB8RDN

Simulated Emergency Test - October 19-20

The ARRL Simulated Emergency Test (SET) is scheduled for October 19-20. However, ARES units and other groups are free to conduct their SETs anytime during the period September 1 to November 30 if an alternative date is preferred. The activity period should not exceed 48 hours. The SET weekend gives you the opportunity to focus on the emergency-communications capability within your community while interacting with the National Traffic System. We would like to see all available Amateurs in the area participating in SET. Contact your local Section Emergency Coordinator or Section Traffic Manager.

ARRL Field Forum July 1991)

Prince George's Wireless Assn.

Meetings: First working Tuesday of each month, 7:30 p.m., American Red Cross Service Building, 6206 Belcrest Road, Hyattsville, MD 20782
Club Station: K3CEZ
Mailing: 4109 Kennedy Street, Hyattsville, MD 20781
Information: Frank Holton, WA3ZMW (301) 927-1245

The regular monthly meeting was held on Tuesday, September 3. The attendance was better than 50% of the total membership. The meeting was brought to order at 8:00 p.m. Ken Easton - N3HLY presided, due to the absence of Frank Holton - WA3ZMW who was visiting his home state at the N.W. corner, Batavia, New York.

Hersh (Dan) Miller - W3SWD, Secretary and Club Liaison Officer for Red Cross Services Communications go-between, has set up a date for the "Simulated Emergency Test. The prospective date for this SET is Saturday, October 19. Dan writes the whole format and writes out the messages to be sent on ARRL

Red Cross Official forms. Dan will control the club station, and satellite stations will be manned by other club members.

There will be a trial run on the preceding Saturday, October 12. Charles Church - KA3COT is the club technician and is in charge of setting up the Emergency Power and other equipment needed.

PG Wireless Association is also proud to announce the induction of our newest member, Morton Lutsky - KA3ZHP, who joined on the meeting night. Welcome, Mort. By the time this goes to print, the Gaithersburg F.A.R. FEST will be history. We do hope everyone enjoyed it.

Ken Easton - N3HLY

Antietam Radio Association W3CWC

Meetings: First and third Tuesdays of each month at 8:00 p.m. at the Civil Defense Center, Washington County Courthouse Hagerstown, Maryland
Nets: Tuesdays, 7:00 p.m. 146.940/340 MHz FM
Wednesdays, 7:00 p.m. 447.975/442.975 MHz FM
Thursdays, 7:00 p.m. 147.090/690 MHz FM
Mailing: Antietam Radio Association, P.O. Box 52, Hagerston, MD 21741

The MD-DC QSO Party was held as scheduled and mail is arriving daily with logs to be verified and positions established as to who won and who didn't.

We ended up with mostly an Eastern U.S. contest this year. A solar flare the day before the contest wiped out much of the higher HF frequencies, including the 10-meter band, for much of the contest; even 15 and 20 were

so-so. But there was excitement and fun for those who participated despite band conditions. We even got two QRP logs from Maine this year!

Our thanks to Auto-Call for its help in promotion of this activity. Watch for next month's column with information on the contest results.

Page Pyne - WA3EOP

Woodbridge Wireless, Inc

Meetings: 3rd Tuesday of each month, at 7:30 p.m.
Tall Oaks Community Center, Lake Ridge.
Intersection of Hedges Run Drive and Cotton Mill Drive.

Repeater: WB4FQR/R 147.84/24 and 449.9/444.9
WB4GJZ/R 223.18/78

Nets: Mondays, 8:00 p.m. local (0100 UTC) 147.84/24, 223.18/224/78
(the repeaters are linked for the net.)
Wednesdays, Slow CW at 8:00 p.m., 21.164 MHz
Saturdays 9:00 p.m. - in new 10 Meter Novice band 28.460 MHz SSB

Mailing Address: P.O. Box 112, Woodbridge, VA 22194

There's lots of stuff going on in the WWI. Foremost for the fall is the election of new officers. We're also working several public service initiatives. As usual, some WWI-ers are still experimenting with different facets of Amateur Radio.

Some members have become interested in serving with the SKYWARN service. The National Weather Service Forecast Office has just announced the training schedule for this fall and winter. (See page 19). The Sterling, Virginia center will be holding the Basic Spotter class on Tuesday, October 1 and the Skywarn Hurricane training class on Monday, October 24. One does not have to be a ham to participate in Sky Warn.

The ARRL 10 GHz contest took place on September 21-22. Jack - K4HWG, Lou - KØRI and Jim - KA4CKI coordinated WWI participation in the contest. The guys will also coordinate WWI participation in the EME contest in October/November from Jack's house.

The Boy Scouts have requested assistance from WWI in demonstrating Ham Radio at a jamboree on October 5 at Silver Lake Camp. They need 3-4 people to give eight sessions of one half hour each to 25/30 scouts per group.

WWI is sponsoring a No Code Technician class which started on September 12 at Our Lady of Angels School in Woodbridge. We plan another testing session (the second this year) following the class.

WWI has been in contact with the Prince William County emergency office and advised them of our capabilities to provide emergency communications assistance. (Note: The ARRL Prince William Emergency Coordinator is Harry Vorhauer - W4PVA)

Denis - WD4KXB obtained special T-shirts for WWI emergency volunteers. Those folks are on an emergency call-up tree and have agreed to respond, with radio (and T-shirt) when called.

Don - K4NGC, has been experimenting with a land line bulletin board with a link to packet (access limited by the SYSOP to qualified hams). He recently took the board down for a revamp and it is back up, but without the packet access. Under the original plan, a ham without packet gear could dial into the board (after pre-arranging access with Don) and work packet via phone line. It was a great way to try packet radio without the expense of buying equipment.

The 2-meter repeater has been repaired but is still not working up to par, apparently an antenna problem. Several people have volunteered to assist Jim - KA4CKI, Lou - KØRI and Jack - K4NGC in testing the transmission line and antenna. The 220 beacon is temporarily down because it is off frequency.

That's all for now. Keep your coax dry and your grounds attached.

WJ4M



Vienna Wireless Society

25 Years of Public Service

Meetings: 2nd and 4th Fridays of each month, 7:30 p.m.
Vienna Community Center, 120 Cherry Street, Vienna, VA
Repeaters: K4HTA/R 146.085 in/146.685 out
222.340 in/223.940 out, 448.250 in/443.250 out
Nets: Every Thursday at 7:30 p.m. on 146.085 in and 146.685 out.
Pow-Wow Net Every Night at 9:00 p.m. at 28.400 MHz
Information: Pat Crosby, KA4FHK (703) 978-6316 (H); (301) 731-9800 (W)
Training Classes: Paul Wilkins, AB4CY (703) 560-2779
Mailing Address: P.O. Box 418, Vienna, VA 22183

We have been very pleased to welcome many new members into our club and into the ranks of Amateur Radio. At the beginning of each meeting I ask if there are any new hams or new member and I have been surprised at the numbers who respond. We had a recent guest that wants to get a ham ticket in order to stay in touch with their boat sailing with a group leaving Spain to celebrate 500 years of the discovery of America. Amateur Radio is definitely growing and our club is gaining in experience with each new member. I hope all new members find some part of Amateur Radio exciting and our club interesting enough to get involved with all the many activities the club is a part of on a regular basis. Thanks to Paul - AB4CY, our new Novice training classes started on September 16th at the Vienna Community Center.

We welcome back to the U.S. one of our own, John Hoffmann - KA0GDI. John has been in Saudi Arabia since December in support of our Dessert Storm campaign. We are looking forward to seeing him at an upcoming meeting, after he catches up with all he missed at home.

One of our members, Bill Mills - KC5PF, has been transferred by his company to Saudi Arabia to provide engineering services for

upgrading Saudi ARAMCO's private telecommunications network. Bill said foreign personnel are not allowed to have radio equipment but he has found the Dhahran Radio Club with all the latest equipment and he will be working the CQ and ARRL DX contest from there. Listen for the call HZ1AB.

We had a good day at Fort Ward Park on the 25th of August when we had our annual Summer Picnic. About 40 people showed up and enjoyed a good day. There were hamburger, hot dogs, baked beans, desserts of all kinds, sodas and even watermelon. It was nice to meet members of the hams' families.

October brings a couple of public service events we usually are involved in - the Vienna Parade and Spook Watch. Check with Steve - KB2CEV, our public service coordinator to volunteer to help with communications. His number is (703) 818-1866.

Paul - AB4CY is looking for articles for the upcoming issue of "Leading Edge." If you have a technical or not-so-technical article you would like to see in the next issue, please give Paul a call on (703) 560-2779.

Pat Crosby - KA4FHK

Foundation Meetings

The Foundation for Amateur Radio meets at 8:00 p.m. on the second Wednesday of each month.

Visitors are always welcome

Phone (703) 536-8469 for information

The next meeting will be on October 9 in Takoma Park, Maryland
Columbia Union College Science Building Auditorium, Flower Avenue
Talk-in on 147.18

Montgomery Amateur Radio Club

Meetings:	1st and 3rd Wednesdays of each month at 7:30 p.m. Executive Office Bldg. Montgomery Co. Government Center, 101 Monroe St., Rockville, MD. Park underground on G-2.
Repeater:	146.04 in (Rockville & Germantown)/146.64 out (Rockville)
Mailing:	M.A.R.C., P.O. Box 611, Gaithersburg, Maryland 20877-0611
Information:	Jeff Horlick - KZ3F (301)258-0112; Steve Todd - K2IYQ (301)253-4172
Training:	Ken Nichols - KD3VK(301)977-5405; Dick Hayman - K3DML (301)251-8721

The Montgomery Amateur Radio Club found a cure for the summer doldrums (a.k.a. "dog days of August") by beating a hasty retreat to the air conditioned coolness of the backroom of Ernie's on August 7. Known informally as the "Eatin' Meetin'" according to John - W3QF, this quarterly social gathering of the M.A.R.C. clan lived up to its spirited reputation. Approximately 25 M.A.R.C. onians left the well-known Gaithersburg pizza parlor on a full stomach and promised to do it all over again - next quarter. See you there October 16!

M.A.R.C.'s regularly scheduled meeting on Wednesday, August 21, was noteworthy for the number of Amateur related events being held in September and October this year.

Among the varied Public Service activities M.A.R.C. is supporting are the Multiple Sclerosis Bikeathon event scheduled for October 20. In addition, this year, M.A.R.C. is supporting the Germantown 8K Run on October 12. Please see Steve - K2IYQ if you would like to participate in one or both of these events. The former is a long-distance all-day event with 20 licensed Amateurs needed to support Montgomery County. The latter is part of the annual Germantown Octoberfest celebration.

To cap off the 8/21/91 meeting, M.A.R.C. was privileged to offer members and guest an informative presentation on the timely topic of "Uninterruptable Power Supplies (UPS). A combination presentation/demonstration was conducted by Glenn - N3COB. By way of example, Glenn cited the critical nature of UPS applications within the medical research arena. Quite often, diagnostic laboratories must run extended (multi-hour) tests related to gas chromatography (blood chemistry) studies, for example. Any type of power fault, even momentary, would not only be counter-

productive, but potentially disastrous: data could be destroyed, incomplete, or erroneous; there could be lost labor hours on the part of the scientist/technician performing the study; precious research funds could be squandered; worst of all, under certain conditions, a life could hang in the balance.

Given the unique nature of this operational environment, to be useful, an uninterruptable power supply should meet these six criteria:

1. Lightning and surge protection recommended: 2,000:1 spike protection.
2. Isolation, including output neutral-to-ground bonding.
3. Output voltage regulation meeting or exceeding ANSI guidelines.
4. Continuous, no break power - for blackouts, brownouts, and momentary interruptions (NOT like a stand-by system).
5. Computer-grade, true sine wave power.
6. Switch-mode power supply rated - with all VA ratings based on computer-type loads with switch-mode power supplies.

N3COB concluded his demonstration speech with a hardware clinic of an UPS system meeting the above requirements. Glen further pointed out that pricing of such systems is based on power ratings with the entry level being \$750 - \$1000 and the high-end running close to \$15,000. The Club wishes to express its appreciation to N3COB for sharing his expertise with the rest of us. The Club extended Glenn the opportunity to supply a loaner UPS for .64 "Repeater Trials." (Just kidding!).

"Stay tuned" to this column for a Reporting Roundup of events, starting with M.A.R.C. talk-in at the Gaithersburg F.A.R. FEST. We hope to be able to comment upon Gaithersburg Old Towne Day as well.

Erinn - N3HSA

Shenandoah Valley Amateur Radio Club

Meetings: First and third Fridays of each month at the SVARC clubhouse on Grace Street in Winchester, VA. Visitors are always welcome.
Repeater: 146.22 in 146.82 out
Net: Shenandoah Valley Emergency Net, 7:15 p.m. daily
Mailing Address: P.O. Box 139, Winchester, VA 22601
Information: Mike Collins - W4ACC (703) 869-2191

The 1991 Winchester Hamfest is now history. It was a great affair, as it always is. There is no way I could find words to express my thanks to the people in the club who worked so very hard on this project.

There are several Public Service events scheduled for September. The first one is the MS Bike Ride on September 7 and the Apple Harvest Festival September 15. The club will set up a station in Jim Barnett Park and send messages for people attending.

The clubhouse has a new roof. I have no idea why it was done since we have had no rain. The club radio room has been upgraded with a new ceiling, wiring, paint, etc. Thanks go to Charlie - K4LWG and Mile - W4ACC for a job well done.

Guy Black - W4PSJ, our training director, is conducting a code free and Novice class.

Walt - WA4HVV

How Did It Originate?

There has been a continuing controversy over where the name HAM originated and every few months another theory appears in a magazine somewhere. Nobody has been able to come up with convincing proof and we still just plain don't know how it started. Now another controversy is under way on the origination of the signal "AR" used at the end of a message sent by cw. We think we have the verifiable answer on this one from Frank Roddy - K3SE of Frederick, Maryland:

A.F. Parkhurst was an American Morse operator who taught code to Radiomen of WWI. Parkhurst was also on the committee which standardized the procedural signals (Q signals, etc.) He left his mark in the "END OF MESSAGE" signal, That was American Morse for "AF" - for AF Parkhurst. Since is AR in International Morse, that is the way we know it now. (American Morse was used on both radio and landline circuits until the Europeans convinced us to use International Code on radio circuits. American Morse continued to be used on our landlines.)

"Sparky," as his friends knew him, started his career as a telegraph operator for the Illinois Central Railroad. He drifted to New Orleans where he became intrigued by the "Great White Fleet" (United Fruit Banana boats running between Central America and New Orleans). After a stint with the ships and their relay stations on Swan Island, he went to the New York area where he became Radio Inspector (Maritime) for the New York District. In between times he taught Morse code to Radiomen of WWI. In the 1940s he came to work with the Radar Installation Group of the Navy Bureau of Ships in Washington, D.C. and became an assistant to Frank Roddy. Roddy had been Hamming since 1926 and during the mid 30s was Radio Operator for RCA in New Brunswick N.J. where he operated the famous Alexanderson Alternators (200 kW, 22 kc.) The two found much in common and AF often recounted the origination of

Thanks to Frank Roddy, K3SE

Metrovision Amateur TV Club

FAST SCAN - COLOR - ATV

Meetings: Quarterly: Call for next meeting time and place.
Repeater: WA9GVK/4 (Video and Audio) 425-431 MHz in; 438-444 MHz out
 Also accessible on 144.970, simplex, audio.
On-the-air: Sundays at 8:00 p.m.
Mailing: Metrovision, Inc., P.O. Box 8231, Falls Church, VA 22041
Information: Dick - WB3EPX (301) 439-8135
 Gene - AD3F (301) 774-5307

We all would like to welcome Bruce - WA9GVK and his bride, Rhonda, back from their honeymoon in Hawaii. Bruce had no sooner gotten back when he had to go up to Cambridge, Mass. to attend a two-week course at Harvard.

Gerald - KB4QGGJ has had his ATV transceiver realigned by Bruce - WA9GVK and is again sending very good quality video.

We want to inform you, our readers, that Ken - W3DFS has moved his residence to Ocala, Florida. Ken will be missed by all of

us, as he was always willing to help us with our various technical problems. We wish him the best at his new QTH.

On August 25, Bob - KC3VO was successful in sending live video to the ATV net from his motorcycle station which was located in Laurel, Maryland.

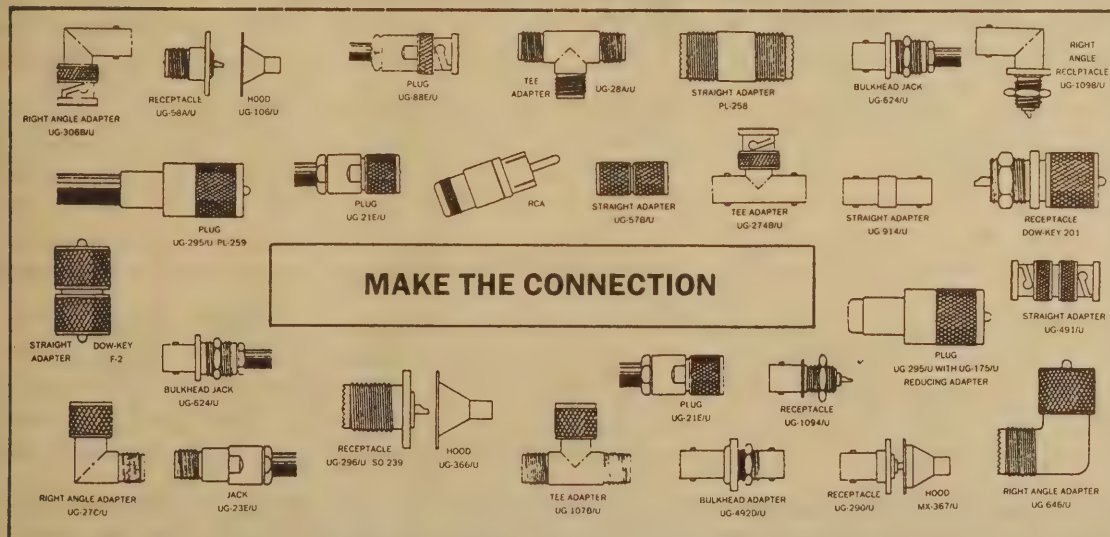
We want to send our appreciation to Bernie - WD4O for showing us his video tape of Bill's - WB8ELK ATV balloon flights which took place in Ohio and Indiana.

See you on ATV.

Dick - WB3EPX

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Southern Patuxent Amateur Radio Club

Meetings: 2nd Wednesday of each month at 7:00 p.m.
Southern Community Center, Lusby, Maryland

Nets: RACES Tuesdays at 7:30 p.m. 146.985
Phone Net every Thursday at 8:30 p.m. on 28.410
Swap N Shop every Thursday at 9:00 p.m. on 28.410

Repeater: 146.985 (out)/146.385 (in) Sunderland, Maryland
443.3 (out)/448.3 (in) St. Leonard, Maryland

Address: 1445 Parran Road, St. Leonard, Maryland 20685

Information: Jay McClain - N3HUH (301) 994-2133 or
Dwayne Kincaid - WD8OYG (301) 586-2177

The first annual Southern Patuxent Hamfest was a success! Good weather helped the attendance to reach 1000. Every chairperson for the hamfest was busy taking notes on what to change for next year to make it bigger and better. Thirty-five Southern Patuxent members were on hand to provide services for the 'Fest. Special thanks to the Southern Maryland ARC who let us use their 147.150 repeater for talk in at the Hamfest.

The 146.985 repeater was hit by lightning just one day after the new solid state replacement was installed. Fortunately, the lightning only took out the receiver front end. The repeater is now running with a 40 watt amplifier and coverage has been almost doubled in the past month. Check-ins on the newly revived RACES net have been averaging about 10 per week.

Bob Paine - KA3ZCI has been named Assistant Emergency Coordinator for Calvert County. Bob has been instrumental in forming

a new Skywarn group that will meet on the 146.985 repeater. Plans for a Skywarn class are being made for this Fall.

Southern Patuxent members will provide communications for the 4th annual Tournament of Bands on October 12th in St. Mary's County. This will be the first time that Amateur Radio will be present at the Tournament. Club members plan to be there from 5:00 to 10:00 p.m. for the event.

Volunteer Exams sponsored by the Southern Patuxent ARC will be given on October 2 at Lusby, Maryland. This is an ARRL VEC exam. For further information and registration, call Dwayne Kincaid - WD8OYG (301) 586-2177 after 5:00 p.m.

New members who joined in August were Ted Parras - N2AHT, Eddie Kowalaczyk - KA3ZCA and Larry Norris - N3JTN.

Dwayne - WD8OYG

Battle of Bull Run

The 10th re-enactment of the Battle of Bull Run was held on Sunday, August 25 in the J.S. Long Park in Prince William County. The Prince William Park Authority sponsored the affair. Two groups of Amateurs participated - one group, a part of the 2000 civil war re-enactors, was suited in civil war uniforms and took part in the battle while the other group, a local group, patrolled the crowd of spectators - 14,000 of them. One Ham stayed with the first aid facilities.

Several minor incidents occurred. One, a youngster fell on a stick and drove it into his leg. He was transported to medical service. Also, there were the inevitable bee stings, none of which required treatment. Otherwise, all went quite well. Participating hams included KM4AA, KD4AUJ, KD4DEG, WA4EJY, W4PVA, KC4VMV and N4WUV. There were others but this is the contingent we had on the list.

Submitted by Harry Vorhauer - W4PVA

Anne Arundel Radio Club

Meetings:	First and Third Thursdays at 8:00 p.m. Davidsonville Family Recreation Center, Queen Anne Bridge & Wayson Roads off Md. Rt 214 near Annapolis
On-the-Air	Thursdays when there is no club meeting, 2030 Local on 147.705/105 Tuesdays at 2030 Local time on 28.410 The Chesapeake Bay Weather & Traffic Net on 147.705/105 at 1100 and 1500 every weekend day and public holiday from April 1 to November 15. Maryland Slow Net (MSN) every evening at 1930 on 3.7170 MHz
Address:	P.O. Box 308, Davidsonville, MD 21035
Information:	Margaret (Holly) Bevan, (301) 923-0229

The August 15th program proved to be both interesting and informative. Club member Ron Jeter - N3FDI discussed the difficult subject of Spread Spectrum in such a way that even the least technical of his listeners could understand. And, we had one of the largest ever turnouts for a program at the Clubhouse.

August was another very busy month for Club members. Thanks to Tony Young - WA3YLO and Dave Walter - N3BFO, the Club hamshack was open for the MD-DC QSO Party on August 17-18. Club members operated the Club rig both days. Their efforts filled six log sheets with 116 contact for 256 points and a score, with multipliers, of 7,680.

There were two big public service events in August. On Saturday the 17th, eleven Amateur operators (coordinated by Carter Anderson - N3GRX) furnished communications for the Bike-a-Thon to benefit the Southern Maryland Branch of the Maryland Chapter of the Multiple Sclerosis Society. The 513 racers started at the London Town Publik House and wound through South County for 50 miles. Over \$62,000 was raised for the cause.

On August 25th, fifteen AARC members gathered bright and early at the Navy-Marine Corps Stadium to do the communications for the officials of the 16th annual Annapolis 10-mile-race, sponsored by the Annapolis Striders. Coordinator James Neiswonger - WB8DWD was very pleased with the turnout and the smoothness of the operation. It was the first public service event for several of the participants, including WB8DWD.

At the Clubhouse on August 20th, Dean Alley - NS3V, Bob Israel - WC3I, and Oscar Ramsey - NV3G administered 17 exams to 9 persons. Eleven exams were passed and there were five upgrades. Bill Aberg - KB3HX and Holly Bevan - N3BMB assisted.

Upgrades in August included: Cyndi Barrett - KA3UQZ to Extra, Bob Usher - N3JIN to Advanced, Pete DesRoches - N3KIE to General and Bill Holmes - N3KBD and Chris Cox - KA3YYO to Tech. New calls: Karen Carter changed from KA3YYJ to N3JYT, Anna Walter from KA3YYX to N3JYU, and Al Moffat from KA3YQI to N3KFZ.

Holly - N3BMB

Dizzying Pace

A new supercomputer, installed at the California Institute of Technology performs 11.9 billion floating point operations per second! Based on the Intel i860 XR CPU, the "Touchtone DELTA System" is the world's fastest supercomputer and will be used to study the "grand challenges of science," including problems in climate modeling, fluid dynamics and molecular biology.

Intel Stockholders' Letter 8/91

A Method to check VHF/UHF Antenna "Noise"

Rolan O. Clark AA3G

This method may help to determine if your repeater antenna system has any "bad" connections by assuming that the currents generated by the transmitted signal will cause mixing in any "bad" connections. By antenna system I mean the antenna feedline and the antenna itself.

At times we are plagued with "intermod" problems on our 2 mtr repeater. One of the sources of the mixing products is "bad" connections in the antenna system. This article tells how we check our antenna system for "noise" generated by "bad" connections in the antenna system but first a few words about where else the intermodulation products may be generated. It happened to us.

Our repeater operates on 146.73 MHz output, the input is on 146.13 MHz. Another repeater approximately 30 miles away has an output frequency of 147.33 MHz. If we generate a second harmonic frequency of our transmit frequency ($146.73 * 2 = 293.46$) and it mixes with 147.33 MHz then one of the products is 146.13, our input frequency ($293.46 - 147.33 = 146.13$). In one instance the mixing was taking place in our final amplifier.

Our duplexer has 90 plus dB isolation between the transmitter and receiver but that figure applies only to the frequencies the duplexer is tuned for. Below are the approximate levels of the signal which was causing our intermodulation problem.

1. The 147.33 frequency had a level of -40 dBm at our duplexer input.
2. The 147.33 frequency had a level of -80 dBm at our transmitter output after going through the duplexer.
3. Any signal at our transmitter output close to our operating frequency is coupled to the final transistor amplifier with minimum loss because of the impedance matching network that matches finals to the antenna output.
4. The second harmonic of 146.73 generated in our finals was mixing with the 147.33 signal and producing an output on 146.13, our input, and was finding its way to our receiver input so we had the characteristic "screech" of this type of "intermod" problem.
5. The problem was solved by installing an isolator at the transmitter output. This gave 20 dB plus of attenuation for signals going back towards the transmitter output. We also added a second isolator in series with the first one as we are in a high RF density area.

I mention the above as an example of one area where "intermod" problems can occur outside the antenna system. Now for the method that we have used to check the quality of our antenna system. Three things that are necessary are :

1. A directional coupler with a through port and a 20 db coupled port.
2. A good load.
3. A generator with a calibrated attenuator.

In our tests we used the "screech" as an audio indicator of when we reached an "intermod" level we could use as a reference.

Step one: If you have an isolator in the transmitter line you may want to remove it to check the directional coupler/load characteristics as this will then require about 20 dB less signal to perform the tests. You may also wish to leave the isolator off, if the system has one, during the antenna tests. More on that later.

Step two: Insert the directional coupler in the antenna path so the coupled port will inject a signal toward the duplexer. Connect the load to the through port of the directional coupler where the antenna would be connected.

Step three: While keying the transmitter, inject a signal equal to twice the transmitter frequency minus the receiver frequency, into the directional coupler coupled port until a "screech" is heard. Approach this point several times to get an average reading and record the reading.

Step four: Turn the directional coupler around and connect the load to the directional coupler where the antenna would connect and the through port to the duplexer input. Now the directional coupler coupled port is configured to inject signals toward the load which is substituting as an antenna. While keeping the transmitter keyed, increase the signal into the coupled port until the "screech" is heard. This level should be at least 20 dB greater than step three.

UHF/VHF Antenna Noise - Continued

This determines that the combination of the load vswr and the directivity of the directional coupler is at least 20 dB, which is sufficient to conduct our tests. If the level to reach the reference point is less than 20 dB then check all connections for a good mechanical contact. Try another load or directional coupler or all three. Some directional couplers may not have a directivity of 20 dB but most of them do. Record this level.

Step five: Remove the load and replace it with the antenna line. While keeping the transmitter keyed, increase the level of the signal into the coupled port until the "screech" is heard. If your "intermod" problem is the result of another known signal, be sure that signal is not being transmitted, if possible. Record this level. If this point is within a few dB of the level noted in step four when a load was being used, then you have a good antenna system. Try shaking the mounting mast, tower or supporting structure while conducting the test to see if the "screech level" occurs at a lesser setting of the signal into the coupled port of the directional coupler.

COMMENTS

Consider the following, if perhaps your antenna has a vswr of 2:1 then roughly 10 percent of the power is reflected. If your transmitter does not have an isolator, then 10 dB below the level noted in step 4 will cause the "intermod" indication due to reflections appearing in the final and not as a result of mixing products in the antenna system proper assuming there are no problems with the antenna system. This is where an isolator is handy as you can use it at the transmitter output to attenuate any signal coming back down the antenna to the transmitter. All we would really like is for the mixing frequencies generated in the antenna system itself to generate the intermodulation products.

Another variation would be to place the load at the antenna and check the "screech" level. If it is the same as with the load connected to the directional coupler then the feed line is ok. If the "screech" occurs at a lower setting of the attenuator and the vswr is very low then you may start to suspect something amiss in the feedline.

In another instance we were plagued by the "intermod" problem with the 147.33 signal and because we had the two circulators we were fairly certain that rf getting back into the final amplifier was not the problem. We also knew that the 147.33 MHz was at a level of -40 dBm at our antenna line input. We inserted the directional coupler, which was a Hewlett Packard 20 dB directional coupler, with the coupled port configured to inject the 147.33 MHz test signal toward the antenna, and we could get the "screech" effect at a level much lower than -40 dBm at the antenna (we made sure that the transmitted 147.33 signal was not present while we conducted the test).

We could have put a load at the antenna line where it goes into the antenna but we felt confident that the antenna was bad so we replaced it and the "screech" level was reduced by 20 plus dB. That is, we had to increase the level by greater than 20 dB, as compared to the level using the "bad" antenna , to get to the "screech" point.

I can't give you any hard and fast figures on what a "good" antenna system should do but if you can approach within a few dB of the value recorded when using the load at the directional coupler then you have a good system. If per chance the "intermod" shows up at a level of 20 dB less than the load level try the test with a load at the antenna or with a substitute antenna.

Please let me know if you have any questions. I have another page of "Gymnastics Just for Grins" and a number of Comments which had to be deleted from this column in order to fit the allotted two pages. I'd appreciate hearing how this test works for you or any comments you may have.

Rolan - AA3G

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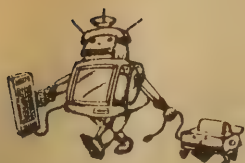
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OLD GOATS' MEETING (FCC Retirees)

The Old Goats' Net will hold a meeting in Florida on January 28-29 at the USA Motel, Winter Haven (Cypres Gardens) Florida. For information contact Frank Kratokvil - K4RE on the net frequency - 7210 kHz or phone (301) 345-6343, Rockville, Maryland.

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- * Oscilloscope HITACHI 30 meg dual
- * Antenna Tuner TENTEC

Call Ralph Mullendore at (301) 585-4335, Silver Spring, Maryland (10)

FOR SALE: Coax, Amp & Beam
2 pieces 7/8" Hardline, each 125 feet, with connectors @ \$70
1 piece RG-217 approximately 100 feet, with connectors \$50
3-1000 amplifier, homebrew, uses B&W tank, 80 - 10 Meters \$300
Telrex TB6EM 6-element Tribander ... \$300
Call Ray Conrad - KT4W, (301) 990-8297 (H) (301) 640-3563 (W). Leave a message on either phone, or write 12204 Corbridge Court, Gaithersburg, MD 20878 (10)

This space was available for your ad. See page 54 for rates on Display Advertising. You can reach 2000 readers in the Greater Washington DC area with your ad in Auto-Call. A 2 column-inch "boxed" ad costs \$22 for one month - and only \$16 per month on contract.

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ARRL "NOW YOU'RE TALKING" (List \$19) 1-9 \$17.30; 10-up \$16.15

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FCC TEST MANUAL" (List \$9.95) 1-9 \$9.15 10-up \$8.55

ARRL "FCC RULE BOOK" (List \$9.00) 1-9 \$8.25; 10-up \$7.65

NEW! ARRL INSTRUCTOR'S GUIDE-NOVICE/TECHNICIAN

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ALL OTHER ARRL AND AMECO LICENSE MANUALS IN STOCK

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New! 12 page discount catalog, free

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(717) 731-4747

Worldwide Shipments

or

Camp Hill, PA 17011

(717) 737-0850

Mastercard/Visa

(10)

FOR SALE: General coverage (500 kc - 30 Mc)
Collins receiver R-388 \$200
Collins receiver 51-J-4 \$350
Both receivers have been reconditioned, re-tubed, re-aligned, and re-drummed.
Dave Rogers - N4JGQ (703) 237-5465 (10)

WANTED: Yaesu Monitor Scope. Was originally (?) an option item for the FT-901/FT-980/FT102 series of radios. Prefer mint condition unit. Jim Bull - N3IDU (301) 843-1210, Waldorf, Maryland. Call anytime. (11)

SERVICE

While U Wait

 **commodore**

64/128/1541/1571 AMIGA 500

Authorized Service Center • In & Out Warranty

10% discount on repair with this ad,

13646 Jeff Davis Hwy.
Woodbridge, VA 22911
491-6502 643-1170
MWF 12 - 8 TT 10 - 5 Sat 10-4

Virginia
Micro
Systems

SHACK SALES

WANTED: In any condition:

- ☐ Collins KWS-1 Transmitters
- ☐ Collins KW1 Transmitter
- ☐ Collins 30K Transmitter
- ☐ Collins 51J/75A Series Receivers
- ☐ A cabinet for Collins 32V-2 Transmitter
- ☐ The desk part of the Johnson Desk kilowatt Amplifier.

Howard M. Mills - W3HM Rt #3, Box 712, Harpers Ferry, WV 25425. Call D.C. (202) 647-2428 (Work) or (304-876-6483 (Home after 7:00 p.m.) (052)

FOR SALE: Ham Gear

- * Butternut Vertical with HG 160 coil - \$125
- * Signal Generator, Measurements Model 80, 10 kHz to 470 MHz \$125
- * Slow Scan TV, Robot 80 and 70 tripod, Macro Lense, Menu Boards \$275
- * Also other small Ham Gear. Larry - W3MSN (301) 894-3977 (10)

Become a part of one of the country's fastest growing vintage radio clubs. The Mid-Atlantic Antique Radio Club is an active group of radio collectors, restorers and historians. For a sample newsletter, write to Joe Koester at 249 Spring Gap South, Laurel, MD 20707. Phone (301) 725-4229. (Swp)

Are you interested in 6-meter (50-54 MHz) Activities? Join the Metropolitan Communications Network Radio Club, Nets: Saturday 8 p.m. (local time) on the club FM Repeater 53.250 out/52.250 in; Sunday 9 a.m. on 50.400 and 8:00 p.m. on upper side band 50.125. If you would like more information call Bob Milligan - KI4MB at (703) 533-0650 or see the Auto-Call Index for club news column.

"RADIO INSTALLATIONS"

Clean - Neat - Professional
If you want it done right
Call us.

Herm - K2LEQ/3
(301) 952-1414
(072)

WANTED: Good quality tube tester. Associated operating manual and test data would be helpful. Prefer Hickok Models 600A or 800K. Phil Dondes (703) 642-8778 (Swp) (301) 952-1414 (072)

Attention Amateur Radio Newsletter Editor. AMATEUR RADIO NEWS SERVICE is an organization of publisher and editors of Amateur Radio newsletter and members engaged in public relations. Its purpose is to assist editors in any way possible. For information, write to Lee Knirko - W9MOL, 833 Park Plaine, Park Ridge, Illinois 60068

FOR SALE: 800 TV tubes new in box, w/rack; B&K Model 1077b TV analyst; B&K Model 960 transistor radio analyst; B&K Model 1450 5" scope; Hickok Model 334 digital multi-meter; Eico Model 324 Signal Generator; Sams Photo-facts #310 to 1253; 152 Sams car radio manuals; and many parts. Purchaser must take everything. \$500 cash. K4LJH, (703) 338-4152 (09)

WANTED: Rohn 25 base plate/short base section; rotator support plate. Dave Rogers - N4JGQ (703) 237-5465 (10)

ADVERTISE IN AUTO-CALL. Reach 2000 readers in the greater Washington Area for only 3¢ per word (\$1.00 minimum).

25 Years a Ham?



QUARTER CENTURY WIRELESS ASS'N, Inc.

- Preserves and promotes Amateur Radio
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 - CW and SSB nets • QSO parties
 - Over \$5,000.00 awarded annually in youth scholarships

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1409 Cooper Dr. • Irving, TX 75061

SHACK SALES



Society of Wireless Pioneers

THE INTERNATIONAL ORGANIZATION
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CERTIFIED PUBLIC ACCOUNTANTS

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Skypoint Ham Center

15 C Catoctin Circle SE
Leesburg, Va 22075
1-703-777-9188

- * Large inventory of used ham gear available..up to date & vintage!
- * Professional service with modest rates and quick turnaround!
- * Well stocked inventory of new rigs, station accessories and antenna needs!
- * Collins equipment a specialty!
- * Estate liquidations and sales welcomed!
- * Customer satisfaction a priority!

Vintage Corner

Collins 75S-3
Heath Apache
B & W 6100
National NC-303
Collins 75A-2
Collins S/Line dlxe
Collins KWM-2A
Gonset GSB-100
Heath DX-60B
Viking 1 & vfo
Gonset 6 mtr
National HRO-60

Many more items to
numerous to list!

If you're looking for
a nice clean used rig
come see us. We get
new hams on the air
at moderate prices!!

MONTHLY FEATURE

OCT
91

Special sale prices on entire
antenna stock continues!

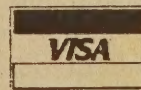
WE CARRY THE ISOTRON ANTENNA.
IF YOU HAVE A SPACE PROBLEM, THESE
ANTENNAS WILL GET YOU ON THE AIR!
SPECIAL PRICE REDUCTION SALE ON
ENTIRE TEN-TEC LINE. THE NEW DELTA
II IS NOW IN STOCK. SOLID SERVICE !!!!!

STORE HOURS:

Tue-Thur..10 - 6
Fri..12 - 9
Sat. 10 - 6



ACCEPTED



Our store is located at 15 Catoctin Circle between
Rt 7 & King Street. Location is at the Harco Bldg
just west of the post office. Look for our antennas!

AUTO-CALL POLICY

PRODUCTION POLICY

Copy for Auto-Call will be accepted in any form - handwritten, typed, compatible computer disk or modem. All hard copy is re-typed to preserve uniformity of style in the magazine. We use Word Perfect 5.1 word processing program, Hayes compatible modem (300 or 1200 baud) and can use either 3½" or 5¼" MS-2DOS diskettes.

In determining space requirements, figure about 600 words per page (50 lines at 12 words per line), including the space taken up by headings, photographs, etc. Either black-and-white or color photos can be used as long as the contrast is good. Master copy, which is to be reproduced directly, should be in black ink on white paper and should be in proper page ratio. (Copy space is 7" wide by 9" high.) Copy can be reduced or enlarged as necessary.

Columns from Foundation member clubs are eagerly solicited and any items of general Amateur Radio interest are most welcome. The editor does reserve the right to edit or reject any portion of any copy submitted and to make minor changes to make copy fit available space.

SHACK SALES

Deadline for copy is the 5th of the month preceding the publication date. Shack Sales will **NOT** be accepted over the telephone. Full address must be provided for our reference but need not be published. Each ad must include the call sign or the full name of the advertiser. If the full address is not included in the ad, we prefer to include the city along with a telephone number so that readers will know whether a long-distance charge is involved. The entire telephone number - including city and state - is counted as only one word. We do not count postal zip codes. Otherwise, each word, abbreviation, model number or group of letter/numbers is counted as one word. Remittance must accompany each ad.

See next column for additional information on advertising. For further information, phone the Auto-Call editor at (703) 536-8469, McLean, VA.

ADVERTISING

SHACK SALES

Non-commercial advertising of Amateur associated equipment is available to subscribers of Auto-Call at 3¢ per word - with a \$1.00 minimum. Commercial vendors and non-subscriber rate is 17¢ per word - with a \$5.50 minimum.

Special headings or special spacing may be used (e.g., one item per line) but such ads are charged at a column inch rate - \$1.00 per column inch for non-commercial ads, \$5.50 per inch for commercial vendors and nonsubscribers.

Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone. Since no effort is made to investigate advertisers, no warranty can be implied.

DISPLAY ADS

DISPLAY ADS are "boxed" and may contain artwork or photographs. They may be placed along with the Shack Sales or displayed in other sections of the magazine. Requests for specific locations will be honored if practical but cannot be guaranteed.

Display ads are charged according to size and duration of run as shown below. All advertising must be pre-paid for at least the current month.

Rates per Issue

Page	Col	inch	1 Year	6 Times	3 Times	1 Time
Full	18		\$75.00	\$90.00	\$100.00	\$105.00
1/2	9		55.00	65.00	71.00	75.00
1/3	6		40.00	46.00	51.00	54.00
1/4	4½		33.00	38.00	41.00	43.00
1/6	3		22.00	26.00	28.00	30.00
1/8	2¼		17.00	20.00	22.00	23.00
1/9	2		16.00	19.00	21.00	22.00
1/18	1		8.50	10.00	11.00	11.50

Based on camera-ready copy.
Extra charges for halftoning photos
and for in-house artwork or layout.

Copy must be received by the 5th
of the month preceding publication date.
(e.g., Copy for August issue must be received by 5 July)

All Advertising Must be Pre-paid



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MEMBERSHIP APPLICATION

Name _____ Call _____

Street _____

City _____ Prov./State _____ PC/ZIP _____

\$30 in U.S. \$42 elsewhere (U.S. funds) Licensed amateurs or age 65 or over, upon submitting proof of age, may request special dues rate of \$24 in the U.S. \$36 elsewhere in U.S. funds. Persons age 17 and younger may qualify for special rates, write for application.

For postal purposes, fifty percent of dues is allocated to QST, the balance for membership.

VISA, MC, AMEX, Discover # _____

Signature _____ Expires _____

The American Radio Relay League

225 Main St. Newington, CT. 06111 USA AUTOCALL

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Hugh Turnbull, W3ABC
6903 Rhode Island Avenue
College Park, MD 20740
Phone: (301) 927-1797

Roanoke Division Director
John Kanode, N4MM
Rt 1, Box 73-A
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AUTO-CALL Magazine

P.O. Box 7612

Falls Church, VA 22040-1452

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Subscription rate: \$8.00 per year.

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OCTOBER, 1991

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 Antietam PG Wireless	2 BARC MARC	3 Anne Arundel	4 Mobileers Shenandoah	5 Stafford
6	7 Adams Dept of State	8 BRATS Fauquier Frederick	9 Pentagon S. Patuxent - FAR -	10 Mt Vernon No. Virginia <u>EXAMS</u> Frederick, MD	11 Alexandria SMARC Vienna	12 Stafford <u>EXAMS</u> Anne Arundel Herndon, VA Mt. Vernon
13 CARA HAMFEST <u>EXAMS</u> Bedford, VA	14 PVRC	15 Antietam Arlington Woodbridge	16 BARC Goddard MARC	17 Anne Arundel QCWA #20	18 RCARA Shenandoah	19 Capital City Stafford Ti County <u>EXAMS</u> Laurel
20 CUMBURLAND HAMFEST	21 Ole VA Hams Sterling Park <u>EXAMS</u> Annapolis, MD	22 Columbia	23 Laurel	24 St Mary's	25 New Carrollton Vienna	26 Stafford
27 Adventists <u>EXAMS</u> Antietam	28	29	30 QCWA #20	31		

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Permit 757

AUTO-CALL

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